University of Alberta

Quakers in Nature:
The Vaux Family's Photographs of Mountains and Glaciers

by

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To my family, of course

Abstract

This project is an investigation into the Vaux family's landscape images and the cultural and idiosyncratic elements that informed their vision of nature as a sublime wilderness. My study examines the role of the Quaker faith, Purist photography practice, and tourism contexts in shaping their perception and, by extension, photographic depiction of the glaciers and Rocky Mountains. The Vauxes were dedicated to nature, as for over thirty years they made annual summer retreats to the mountain parks. The family pioneered glacier study in Canada, and their photographs chart not only glacier recession but also their enchantment with wilderness. The photographs depict nature as a numinous place, yet as Philadelphians traveling on the Canadian Pacific Railway in the late-19th and early-20th centuries, the Vauxes witnessed the growing presence of tourism in the parks. This thesis explores the ambiguity in the meaning of nature and its relationship to personal and cultural constructs.

Acknowledgements

Writing this thesis has been an exciting experience and I am most grateful to the many people who assisted me along the way. First and foremost, it is with great pleasure that I thank my graduate supervisor, Dr. Colleen Skidmore, for her ceaseless guidance, wise council, and steadfast support. Dr. Skidmore has been an outstanding mentor and it has been a privilege to learn from her during my undergraduate and graduate years. I would like to mention a special thanks to Dr. Keri Cronin and Dr. PearlAnn Reichwein for taking interest in my project. I am indebted to the both of them for their suggestions and comments—their sage advice helped push my thesis in creative and interesting directions. This project would not have been possible without the help of archivists at the Archives and Library of the Whyte Museum of the Canadian Rockies, especially Don Bourdon and Lena Goon. I thank them for answering my inquiries, for their infallible reliability and dedicated assistance in locating materials for me. I would like to further extend my thanks to Dr. Henry J. Vaux Jr. for sharing information with me about his ancestors, and to Dr. Steven Harris for posing the concise and meaningful question—"Why Quakers and Glaciers?" Most importantly, I would like to thank my family, especially my parents, brother, and grandma, for their emotional support during this undertaking. Their kind words of encouragement and unwavering positive outlook continuously motivated me. Lastly, my most heartfelt and sincere thanks to my husband, Bryce Milliken, for his patience, kindness, advice, humor, and support.

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Introduction

> *"It is to me the loveliest spot to be found, and always quickens my blood when I hear and speak of it."*[1]

It was on July 16th, 1887 that Mary, William, and George Vaux Jr. first arrived at Glacier House, British Columbia, and walked one and three quarters of a mile to the Great Glacier, also called Illecillewaet glacier.[2] This first trip was a pivotal one for the family because it confirmed what their Quaker faith had cultivated—that nature is a place of spirit. The Vauxes' enchantment with nature as a sublime landscape permeates their written observations and photographs, and indeed it was their wonder that enticed the family's scientific study of the glaciers and frequent travels from Philadelphia to the mountain parks of Canada. While the Great Glacier area left a lasting impression on the family, their fascination with wilderness encompassed the entire Rocky Mountain and Selkirk regions. The Yoho Valley, of which the above passage speaks, was Mary Vaux's favorite haunt. The photograph *Takakkaw Falls from Below* (Fig.1) was made in Yoho Valley and illustrates Vaux's rapture with the non-human world.[3] Here, the power and majesty of nature is showcased: the thundering waterfall, which was fed by glacier melt waters from the Daly Glacier, is the focal point and its grandeur is reinforced by the tiny female figure in the foreground. The woman is presumably Vaux and she is dwarfed by the surrounding wilderness, yet she looks comfortable in her spiritual solace. Mary Vaux was captivated with nature, and made yearly summer trips to Yoho and Glacier National Parks, from 1887 until the 1930s. Vaux's fascination with Takakkaw Falls is symbolic, as the waterfall emanates from a nearby glacier: the family's favorite subject matter. Vaux's devotion to the non-human world, especially glaciers, was shared by her brothers, William and George Vaux Jr., and the family's rapture with the transcendental elements of the wilderness imbues their photographs.

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[1] Mary Vaux, letter to Dr. Charles Walcott, 1 April 1912, Smithsonian Record Unit 7004, Box 5, Folder 2.

[2] William Putnam, *The Great Glacier and Its House: The Story of the First Center of Alpinism in North America, 1885-1925* (New York: The American Alpine Club, 1982), 39, 82. Illecillewaet is Sushwap for rushing water. See also Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps* (Banff, Altitude Publishing, 1983), 6.

[3] Takakkaw Falls is located north of Field, British Columbia in Yoho National Park, and is close to Takakkaw Falls Campground and the Whisky Jack Hostel. The Falls emanate from the Daly Glacier. Mountainnature.com, "Takakkaw Falls," www.mountainnature.com/Geology/LandformResult.asp?ID=11; accessed 12 April 2004. The names

In *Camera Lucida,* Roland Barthes explains that all photographs embody an essence which can pique a viewer's interest in an image.[4] As a viewer a century later, I am drawn to the Vauxes' photographs because the images render nature as a sublime environment. Yet, as William Cronon argues in "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," the notion of the sublime is a culturally conditioned perception. Using Cronon's argument as the impetus to this thesis, I argue that the Vauxes' photographs of the mountains and glaciers inform the cultural conception of nature as a sublime wilderness. While their Quaker faith conditioned their perception of nature, their purist aesthetic photographs, which poetically emphasize the spiritual elements in the landscape, and their role as Canadian Pacific Railway (C.P.R.) travelers in the mountain parks demonstrates that they were not only producers but also consumers of the sublime conception of nature.

Takakkaw and Yoho are Cree for "it is magnificent" and "awe," respectively. Thank you to Fiona McDonald for explaining the meaning of the place names.

[4] Roland Barthes, *Camera Lucida: Reflections on Photography,* trans. Richard Howard (New York: Hill and Wang, 1980).

The Vaux Family: An Introduction

It comes as no surprise that the family was fascinated with nature. As erudite and well to do Quakers, Mary, William, and George Jr. were raised in a family where nature was central to their upbringing in Philadelphia. George Vaux Sr., the patriarch of the family, believed that travel and the study of nature improved one' s life experience, while their mother, Sarah Morris Vaux, was an avid botanical painter.[5] Their uncle William Sanson Vaux, the curator and later vice-president of the Academy of Natural Sciences,[6] piqued the siblings' interest in mineralogy, while their Friend's Select education nurtured their devotion to nature through religious teachings. Motivated by the Quaker practice of benevolence, George and Mary Vaux each chaired the United States Board of Indian Commissioners, a non-partisan organization that provided assistance to Native Americans in Nebraska and Kansas.[7] The family extended their benevolence toward the non-human world by promoting the preservation of the mountain parks and wilderness areas, and devoting themselves to serious amateur study of glaciers. As prominent members of the Philadelphia intellectual community, they engaged in organizations dedicated to the amateur study of the natural sciences and photography.[8] They presented lectures about their glacier research at the Academy of Natural Sciences, and exhibited their glacier landscape images in photography salons in Philadelphia and New York.[9] This thesis focuses on the Vauxes' work between 1887 and 1922 not only because it was an eventful and productive period for them, but because it defines the time when they were traveling to and working within the mountain parks as a family.

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[5] Cyndi Smith, *Off the Beaten Track: Women Adventurers and Mountaineers in Western Canada* (Jasper: Coyote Books, 1989), 25-6.

[6] George Vaux, "The Vaux Family Scientific Pursuits," *Frontiers* 3 (1981-2): 57-60.

[7] Philip S. Benjamin, *The Philadelphia Quakers in the Industrial Age* (Philadelphia: Temple University Press, 1976), 113. The Board was created by the Orthodox philanthropist Philip Garrett in 1869. George Vaux Jr. served as chairman for twenty years and Mary Vaux succeeded her brother in 1927. For more (although brief) information about Mary Vaux's role as chairwoman see Smith, *Off the Beaten Track*, 47.

[8] Mary Panzer, "Photographs from Nature: Landscape Photographs and the Pursuit of Natural Sciences in Philadelphia, 1882-1902," *Obscura* 1 (1985): n.p.

While this thesis examines the work of the family as a whole, it must be noted that Mary, William, and George Vaux Jr. contributed individually to the family photography repertoire.[10] William was an engineer, and it was his scientific interests that served as the impetus to the glacier studies. William published articles in scientific journals and images such as *Break in the Snowshed at Glacier from Below* (Fig. 2) were used to illustrate his C.P.R.-sponsored reports. By contrast, however, he was also an eloquent writer and his literature about nature is poetic in tone. George Jr. was a lawyer by profession, and was also noted for his lyrical texts and photographs of nature. He assisted William with the publication of the first articles in *The Journal of the Academy of Natural Science of Philadelphia* and then continued the family research after William's death in 1908. Unlike William, George participated in fine art groups along with his sister, Mary Vaux. Mary's interest in photography was complemented by her passion for science. While she did not receive a formal post-secondary education, she devoted herself to the study of the natural sciences. She carried on the family's glacier research into the 20th century, and presented their findings in tourism pamphlets for the C.P.R. in the early 1920s and in various lecture capacities. Mary Vaux committed the most research time to the family's glacier study, as she continued to return to the mountain parks until 1939.[11]

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[9] Cavell, *Legacy in Ice,* 8,9.

[10] All of the biographical information about the Vauxes is from Cavell, *Legacy in Ice,* 6-18.

The Vauxes were multifaceted people with multifarious interests, thus the study of their work requires an multidimensional analysis. This thesis, therefore, will explore three areas: the Vaux family's Quaker faith, their purist photography practice, and their role as travelers in the mountain parks of Canada. Although seemingly disparate categories, the nexus between each is the matter of the sublime: that is, how the Vauxes' religious culture conditioned their perception of the sublime, how the photographs communicate the sublime, and how as travelers they consumed the sublime. Three main concepts serve as the theoretical framework to this thesis: William Cronon's argument about the cultural creation of nature, Dean MacCannell's theory of sight sacralization, and Joan Schwartz's concept of imaginative geographies.

Literature Review

In his polemical study, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," William Cronon explores the cultural meanings invested in the idea of nature.[12] The crux of his argument is that "far from being the one place on earth that stands apart from humanity, [nature] is quite profoundly a human creation."[13] By charting the epistemology of the concept of nature, Cronon showcases its unnaturalness. He explains that wilderness is a fluid term because it is incidental to history and culture. Unlike previous generations, the 19th-century middle-class audience in the United States perceived nature as propitious because it became a place of American national renewal. It was in the cathedral of nature that people found community in the collective communication with God,[14] and where men could escape an effeminate civilization and celebrate individualism and conquest. Nature became "the nation's most sacred myth of origin,"[15] but most importantly it became sacred. The sacralization of nature is founded upon two concepts engendered in the 18th and 19th-centuries: the sublime and the frontier.[16] The former defines nature as a secluded solace where God is present, while the latter positions it as a bastion of national renewal and masculine invigoration. Concepts of the sublime and frontier had been cultivated by an elite echelon of society that sought to rediscover nature in a time of industrialization, and for this reason the nature experience signified what Cronon describes as a "bourgeois form of antimodernism."[17] In order for nature to be natural, then, it had to preclude the trappings of human civilization. The sublime and the frontier have projected selective and conceptual—not literal—ideas of the wilderness that continue to shape our perception of nature. Cronon's goal is to persuade readers that nature is ubiquitous, and by doing so inspire responsible environmentalism and spotlight the communion between the human and non-human world. His discussion is essential for this thesis because of his critical and insightful investigation of nature and, in specific, the sublime landscape.

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[11] For more information about Mary Vaux see Smith, *Off the Beaten Track*, 23-49.

[12] William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. Wm. Cronon (New York and London: W.W. Norton, 1996), 69-90.

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[13] Ibid., 69.

[14] See Barbara Novak, *Nature and Culture: American Landscape and Painting, 1825-1875* (New York: Oxford University Press, 1980), 3-34.

[15] Cronon, "The Trouble with Wilderness," 77.

[16] For more information about the frontier see Christine Bold, *Selling the Wild West: Popular Western Fiction, 1860-1960* (Bloomington: Indiana University Press, 1987); Carolyn Merchant, "Reinventing Eden: Western Culture as a Recovery Narrative," in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: W.W. Norton, 1995), 132-159.

[17] Cronon, "The Trouble with Wilderness," 78.

While Cronon charts the historical evolution of the perception of nature as sacred, Dean MacCannell exposes the formulaic process of the sacralization of place within the context of tourism. In *The Tourist: A New Theory of the Leisure Class,*[18] MacCannell explains that tourism is based on the concept of visiting *sights*, which he defines as places or cultural objects that are apotheosized by culture. Among "institutional mechanisms" that dictate the construction of sight is sight sacralization.[19] MacCannell charts the five stages necessary for the beatification of a sight. The first stage occurs when a sight is recognized as valuable for preservation or recognition; the second stage is called the "framing or elevation" stage in which the object is framed or put on a pedestal for observation. "Enshrinement" is the third stage that occurs when "the framing material that is used has itself entered the first stage of sacralization." Stage four is entered when the object is reproduced mechanically, such as photographically, and the final stage takes place when the society or culture to which it belongs values itself based on the sight.[20] MacCannell's argument is imperative to this thesis because it outlines a plausible explanation for how photography aids in the sacralization of sights such as mountains and glaciers.

In "*The Geography Lesson:* Photographs and the Construction of Imaginative Geographies," Joan Schwartz investigates the role of photographs in shaping conceptions of place.[21] The relationship between photography, geography, and travel became apparent in the Victorian era when photographs were used to document places visited during the Grand Tour. Photographs taken on the Grand Tour were intended to yield objective data that was later used to categorize knowledge. The Victorian belief that "seeing is believing" partnered with the mechanical process of photography fuelled the inaccurate conception that photographs communicate objective information. Examining the travel photographs taken by Maxime du Camp, William England, and Joly de Lotbinière, Schwartz demonstrates that each photographer carried "intellectual baggage" that informed the manner in which he saw and photographed the world. The "intellectual baggage" to which Schwartz refers is described as imaginative geography. An imaginative geography is an accretion of empirical and non-empirical information that is inscribed in tour books, travel writing, letters, and fictional literature, and she argues that an imaginative geography serves as a pretext that informs a photographer's notion of place and, by extension, the photographic depiction of it. Conversely, the photograph eventually becomes a pretext that conditions a viewer's perceptions about place and space. Schwartz's argument demonstrates the importance of acknowledging and critically investigating the multidimensional elements that inform a photograph.

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[18] Dean MacCannell, "Sight Seeing and Social Structure," *The Tourist: A New Theory of the Leisure Class* (New York: Schocken Books, 1976), 39-51.

[19] MacCannell, *The Tourist,* 42. Sight Sacralization is complemented by another mechanism called "ritual attitude," which is when individuals confer respect to something of high regard and value. I will not be exploring the mechanism of ritual attitude in this thesis.

[20] Ibid., 44-45.

[21] Joan M. Schwartz, "*The Geography Lesson:* Photographs and the Construction of Imaginative Geographies," *Journal of Historical Geography* 22 (January 1996): 16-45.

Why Quakers and Glaciers?

While the imaginative geography theory applies to photographs, Alexander Wilson demonstrates that it also pertains to cultural concepts such as nature. In *The Culture of Nature: North American Landscape from Disney to the Exxon Valdez,* Wilson explains that the experience of the natural world is mediated by a constellation of cultural pretexts like "photography, industry, advertising, and aesthetics, as well as by institutions like religion, tourism, and education."[22] While indeed there are several cultural elements that condition the perception of nature, this chapter focuses on the role of the Quaker faith in inspiring the Vauxes' conception of the sublime. The chapter charts the complex relationship between Quakerism and nature within a late-19th-century American history framework. In this period, middle class Americans fashioned their idea of wilderness upon the European prototype of the "Romantic-Gothick" sublime.[23] Informed by philosophers such as Edmund Burke,[24] the sublime landscape was defined by grandiose natural phenomena, and it was understood to elicit feelings of awe and terror in the spectator. By the mid-19th century, however, the meaning of the sublime in the United States shifted when it was imbued with religious rhetoric. No longer a frightful and emotionally overwhelming place, nature became a spiritual solace where one could converse with God. As the Vauxes' photographs demonstrate, the transcendental qualities in the landscape invoked feelings of divinity. The meaning of the sublime is indeed a fluid term which is incidental to both broad historical frameworks as well as individual idiosyncrasies, and this thesis will refer to the late 19th century North American conception of the sublime as a place of spirit. This American idea of nature has discursive roots, for the Quaker culture was also instrumental in shaping the notion of the sublime.

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[22] Alexander Wilson, *The Culture of Nature: North American Landscape from Disney to the Exxon Valdez* (Toronto: Between the Lines, 1991), 21.

[23] See Novak, *Nature and Culture,* and *American Sublime: Landscape Painting in the United States, 1820-1880,* eds. Andrew Wilton and Tim Barringer (Princeton, New Jersey: Princeton University Press, 2002), 14-50.

[24] Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful,* 2nd ed. (New York: Garland Publishing Inc., 1971).

British Quakers settled in Pennsylvania in the 17th century, and were renowned for their pacifist lifestyle that emphasized equality, simplicity, and benevolence.[25] The custom of benevolence is of particular interest, as Quaker scholars such as Larry R. Clarke and Donald Brooks Kelly contend that benevolence manifested a unique Quaker ecology.[26] The respect and kindness proffered to the natural world was based on the principle that God crafted the human and non-human realms, and for this reason Quakers revered all of God's creations. Benevolence was integral to Quaker culture, as it was emphasized in school curriculum and Meeting houses, and was instrumental in stirring the Vauxes' belief about the natural environment as the handiwork of God. By exploring the custom of benevolence in Quaker culture, this chapter investigates the role of Quakerism in conditioning the Vauxes' conception of nature.

The family's conviction of nature as a place of wonder is communicated in photographs such as *Castor Pollux etc with Asulkan Stream in the foreground* (Fig. 3) and *Mount Assiniboine from camp* (Fig. 4). These images produce the sublime notion by focussing on the majesty of nature and by excluding human presence and all trappings of technology from the picture frame. Like many of the Vauxes' other images, *Mount Assiniboine* and *Castor Pollux* are underpinned by an emotional reverence toward the landscape. As the second chapter demonstrates, however, the images embody equally a scientific dimension.

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[25] See Benjamin, *The Philadelphia Quakers*.

[26] Larry R. Clarke, "The Quaker Background of William Bartram's View of Nature," *Journal of the History of Ideas* 46 (1985): 435-48, Donald Brooks Kelly, "Friends and Nature in America: Toward an Eighteenth-Century Quaker Ecology," *Pennsylvania History* 53 (1986): 257-72 and "The Evolution of Quaker Theology and the Unfolding of a Distinctive Quaker Ecological Perspective in Eighteenth-Century America," *Pennsylvania History* 52 (1985): 242-53.

"Art Born of Science"[27]: or, The Fine Art of Documenting Nature

The blending of scientific and artistic pretexts in the Vaux family's photographs is reminiscent of the concept of imaginative geography, but as this chapter demonstrates the amalgamation of science and sentiment is also characteristic of a purist or straight photography aesthetic. While purist photographs lack the physical manipulation of the print, as is characteristic of the pictorialist technique, detailed and focussed purist images are nevertheless embedded with subjectivity.[28] The idea of human subjectivity in these images is problematic since they were perceived in certain public contexts as scientific documents. As an example, *Séracs, Illecillewaet Glacier* (Fig. 5.) functioned as visual reference for the family's glacier research in the 1909 article "Modern Glaciers," which was published in the scientific section of *The Canadian Alpine Journal*,[29] as well as presented in lectures and publications for the Engineers Club of Philadelphia.[30] The Vauxes pioneered the study of glacier recession in Glacier National Park, and despite their amateur rank their research was recognized by the international glaciology community, which included the Commission International des Glaciers.[31] As members of the amateur scientific community, the family devoted their time and education to further the study of glaciers, and, as William wrote, the photographs aided their research because they were the "most satisfactory means of permanently recording" glacier movement.[32]

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[27] Don Bourdon [curator], *Art Born of Science: The Vaux Family Amidst Mountains and Ice, 1887-2002, the Vauxes as Photographers,* Whyte Museum of the Canadian Rockies, Banff, Alberta. 25 April-15 October 2003.

[28] See James Borcoman, "Purism Versus Pictorialism: The 135 Year War," *Artscanada* 31 (1974): 69-82.

[29] Wm. S. Vaux, "Modern Glaciers," *Canadian Alpine Journal* 2 (1909): 56-78.

[30] George Vaux, "William S. Vaux, Jr.," *Canadian Alpine Journal* 2 (1909): 124-7. In the spring months of 1900, William presented a lecture to the Engineers Club about the challenges of developing the C.P.R. in the Laggan and Revelstoke regions. Vaux's presentation is reprinted in Wm. S. Vaux, "The Canadian Pacific Railway from Laggan to Revelstoke, British Columbia," *Engineers Club of Philadelphia* 17 (May 1900): 64-86.

[31] Cavell, *Legacy in Ice,* 14.

As members of the Philadelphia intellectual community, the Vauxes were exposed to not only the amateur study of natural sciences, but also to the amateur practice of fine art photography. The family befriended pivotal pictorialists such as Alfred Stieglitz, who spearheaded the pictorialist fine art photography movement of the early 20th century.[33] Mary and George Vaux participated in the pictorialist and Photo-Secession groups, although only Mary showcased her photographs in 1905 at Stieglitz's New York gallery, *Photo-Secession Gallery.*[34] She also displayed her photographs at a Yellowstone exhibition in 1886, as well as in the 1898 and 1899 Fine Art Philadelphia Photography Salon.[35] The siblings exhibited their work together in 1901 at the Philadelphia Photographic Society Exhibition and the Camera Club show in New York.[36] The shows included over one hundred and sixty landscape photographs of the Canadian mountains and glaciers, and in fact *Séracs, Illecillewaet Glacier*—the same image that educated the scientific community—was displayed at the art exhibitions. *Séracs,* therefore, functioned in both artistic and scientific capacities. This chapter explores how the purist aesthetic enabled the images' fluidity in meaning and why the audience and viewing contexts were imperative in shaping the definition of the landscape photographs, and thus nature.

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[32] Geo. and Wm. Vaux Jr.,"Some Observations on the Illecillewaet and Asulkan Glaciers of British Columbia," *Natural Sciences of Philadelphia* 51 (1889): 122

[33] Wm. Innes Homer, *Pictorial Photography in Philadelphia. The Pennsylvania Academy's Salons: 1898-1901* (Philadelphia: The Pennsylvania Academy of the Fine Arts, 1984.)

[34] In 1908 Stieglitz renamed the *Photo-Secession Gallery* to *291.*

[35] Cavell, *Legacy,* 16, and Dorothy Norman, *Alfred Stieglitz: An American Seer* (New York: Random House, 1974), 232.

Crevasses, Illecillewaet Glacier (Fig. 7), is a fine example of the purist photographic practice because an emotional reverence toward nature is evident despite the scientific look of the print. The accretion of elements that defines the photographs is reminiscent of the imaginative geography concept, and while viewers recognize the descriptive qualities in the images, tourists and travelers looking at the Vauxes' images in a tourism context acknowledged the depiction of nature as a sublime wilderness.

The Vauxes' Mountain Pilgrimages: Tourism and Photography in Glacier National Park

The Vauxes first entered Glacier National Park in 1887 as travelers on the C.P.R. This group of mountain enthusiasts formed what PearlAnn Reichwein defines as the "first generation"[37] of railway travelers in the Canadian mountain parks. According to John Taylor, travelers "are the most serious and dedicated explorers… [who] expend more time, money and attention to their practice than tourists."[38] The Vauxes' frequent travels to the region and involvement with mountain organizations, such as the Alpine Club of Canada (A.C.C.), confirmed their roles as members of the alpine community.[39] The Vauxes also maintained friendships with C.P.R. employees; in exchange for free railway passes, the family created a series of brochures about the glaciers for the railway company. The pamphlets publicized the family's glacier research and landscape photographs, and as a result the brochures not only educated

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[36] Unpublished materials about the Vauxes' exhibitions at the Philadelphia Photographic Society and the New York Camera Club are located at the Archives and Library of the Whyte Museum of the Canadian Rockies, M107/accn. 4012, and M107/accn. 7579.

[37] PearlAnn Reichwein, "Guardians of the Rockies," *The Beaver* 74 (August/ September 1994): 4-13.

[38] John Taylor, *A Dream of England: Landscape, Photography, and the Tourist Imagination* (New York and Manchester: Manchester University Press, 1994), 7.

the public about the area, but also encouraged tourism in the mountain parks. Images such as *Falling Avalanche from Mount Victoria, Lake Louise* (Fig. 8) promoted scenery along the railway line, and despite the inevitable presence of technology in the region, the Vauxes' Quaker-inspired conception of nature remained steadfast.

The landscape photographs are delightful to look at and, especially when viewed in a tourism context, inspired tourist and traveler interest in the mountain parks. The sense of sight is imperative to tourism, and as John Urry argues in "The Consumption of Tourism," the tourist gaze, which includes the romantic gaze, can stimulate tourist activity or consumption of a destination.[40] The romantic gaze is associated with nature settings that emphasize solitude and privacy, and where the viewer can have a "personal, semi-spiritual" experience with the wilderness.[41] This chapter argues that the Vauxes' photographs piqued the viewer's romantic gaze and, importantly, that the Vauxes experienced the romantic gaze. Peter Osborne builds on Urry's scholarship in *Travelling Light: Photography, Travel and Visual Culture,* as he argues that travel photographs not only inform the tourist gaze, but also condition perceptions of place.[42] This chapter will refer to both Urry and Osborne's scholarship to explore how the Vauxes' photographic images of the Rockies and Selkirks conditioned conceptions of nature, despite the bountiful presence of tourism in the parks areas, and enticed travelers to explore the mountain parks.

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[39] Smith, *Off the Beaten Track,* 34. The Vauxes were also members of the American Alpine Club.
[40] John Urry, "The Consumption of Tourism," *Sociology* 24 (February 1990): 23-35.
[41] Ibid., 31.

Conclusion

The Vauxes' conviction about nature as a sublime landscape is described in their written observations and embodied in their landscape photographs. This thesis is about recognizing the imaginative geographies that define the Vauxes' perception of nature, which includes their Quaker faith, their amateur practice of glaciology and fine art photography, and their role as travelers in the mountain parks and members of the alpine community. Alexander Wilson, amongst others, states that nature is a complex and intricate concept, and as this thesis will demonstrate, the Vauxes' photographs are instrumental in shaping conceptions of nature as sublime.

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[42] Peter D. Osborne, *Traveling Light: Photography, Travel and Visual Culture* (Manchester and New York: Manchester University Press, 2000), 79-91.

Chapter One

"Why Quakers and Glaciers?"

> *Every leaf and twig was shining with crystal dew, and we drew in cool breaths laden with the aroma of the forest. Above us, the higher peaks were just tipped with light from the rising sun, while the valley was filled with the purple haze of morning.*[1]

> *On reaching its end we rested to admire that beautiful valley, hemmed in by steep slopes and sheer summits with ethereal Selkirks closing in the view...*[2]

The Vauxes' lyrical accounts of the mountain area leave an impression of awe and fascination upon the reader, for the colorful and vivid descriptions convey that the glacier and mountain landscape is indeed a majestic place. The narratives, written by William and Mary Vaux respectively, spotlight the family's enchantment with nature, an emotional quality that is also communicated in their landscape photographs such as *Castor Pollux etc with Asulkan Stream in the Foreground* (Fig. 3).[3] Picturesque elements are employed in the image, as the rough components of the rocks and brush contrast the soft and velvet-like texture of the water. There is a sense of stillness and peace depicted in this photograph that speaks to the late 19th-century notion of nature as a sublime landscape. The definition of the sublime varies with historical periods and so this chapter focuses on the late-19th century idea of the sublime that conceives of nature as the handiwork of God and a spiritual place.[4]

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[1] William S. Vaux Jr., "Climbing in the Selkirk Mountains," *The Minneapolis Journal,* 24 December 1898, not paginated, Archives and Library of the Whyte Museum of the Canadian Rockies, M107/accn. 7202.

[2] George Vaux, "The Ottertail Group," 5, not dated, Whyte Archives, M107/accn. 7202.

[3] *Oxford English Dictionary,* s.v. "Castor Pollux." Derived from Greek mythology, Castor and Pollux are the twin sons of Tyndarus and Leda. They are represented in the constellation Gemini.

[4] William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature,* ed. Wm. Cronon (New York: W.W. Norton, 1996), 73.

This concept of sublime nature is informed by not only religious rhetoric but also by a constellation of other cultural factors. In *The Culture of Nature: North American Landscape from Disney to the Exxon Valdez,* Alexander Wilson states that the notion of nature is conditioned by institutions such as religion, tourism, and education, as well as by rhetorical constructs such as photography and aesthetics.[5] While there are several factors that inform ideas about the non-human world, this chapter will focus on the role of Quaker culture in conditioning the Vauxes' perception of the mountain and glaciers as a sublime landscape. I begin with Quakerism because it is imperative to this thesis. It was as Quakers that the Vaux family practiced photography within scientific and artistic capacities; as Quakers that they toured the Canadian Selkirk and Rocky Mountains via the C.P.R.; and, as Quakers that they saw and understood nature. I argue that the Quaker culture of benevolence engendered a sense of wonder about the environment which encouraged their perception and, in turn, photographic depiction of nature as a place of spirit.

Literature Review

The overarching theme in this chapter is the relationship between nature and religion, and the work of scholars such as Alexander Wilson and William Cronon demonstrates that there is a vivid debate about this relationship taking place within the academic discourse.[6] Such literature has not only guided my study of the Vauxes' landscape photographs, but also sheds light on the importance of faith—and in this case Quakerism—in defining the pantheistic milieu that characterized middle-class American mentality about nature in the 19th-century. Barbara Novak's *Nature and Culture: American Landscape Painting* is equally important for this chapter because she acknowledges the religious undercurrents that informed the American concept of wilderness while framing her argument within an art historical context.[7] In "Part One" of her seminal scholarship, Novak charts the sacralization of nature in the United States in the late-18th and 19th centuries. She explains that American reverence towards the non-human world is rooted in the European concept of the "Romantic-Gothick" sublime, an aesthetic that was articulated by Edmund Burke.[8] Burke explained that the sublime environment was best characterized by grandiose natural phenomena because it could elicit feelings of awe and terror in the viewer. Emmanuel Kant subsequently honed the notion of the sublime as a non-utilitarian practice and defined it as an altered emotional state within the spectator, not the object itself.[9] Novak explains that the presence of uncultivated wilderness in both eastern and western American landscapes shaped middle-class American imagining of the "Romantic-Gothick." By the early 19th century, however, the European sublime became Christianized—and therefore distinctly American—when religious rhetoric and pious morality saturated the sublime concept. Paintings by Thomas Cole and

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[5] Alexander Wilson, *The Culture of Nature: North American Landscape from Disney to the Exxon Valdez* (Toronto: Between the Lines, 1991), 13.

[6] See also Lynne White Jr., "The Historical Roots of our Ecological Crisis," in *Western Man and Environmental Ethics: Attitudes Toward Nature and Technology,* ed. Ian G. Barbour (Reading, Massachusetts: Addison-Wesley Publishing Company, 1973), 19-30. The theoretical crux to White's argument is that the prominent Christian dogmas that have informed the idea of nature are the cause of

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the current ecological crisis. He states that "we shall continue to have a worsening ecological crisis until we reject the Christian axiom that nature has no reason for existence save to serve man," (29).

[7] Barbara Novak, "Part One," in *Nature and Culture: American Landscape Painting, 1825- 1875* (New York: Oxford University Press, 1980), 3-34.

[8] Linda L. Revie, *The Niagara Companion: Explorers, Artists, and Writers at the Falls, from Discovery through the Twentieth Century* (Waterloo, Ontario: Wilfred Laurier Press, 2003), 60. Revie explains that Burke's theory about the sublime was preceded by John Dennis's *Miscellanies in Verse and Prose* (1693), Anthony Ashley Copper's *The Moralist* (1709), and Joseph Addison's "Pleasures of Imagination," *The Spectator*, 21 June- 3 July 1712.

poetry by John Muir are examples of the "new" Christianized sublime in which nature was depicted as a spiritual solace rather than an ominous entity.[10] The religious undercurrents that defined nature galvanized a sense of community that led to the beginning of American Nationalism.[11] Novak explains: "God in or revealed through nature is accessible to every man and every man can thus commune with nature and partake in the divine. God in nature speaks to God in man."[12]

The American wilderness ethos permeated many facets of American culture including art production by the Hudson River School.[13] Novak explains that while Hudson River artists were inspired by cultural concepts of nature, such as the sublime, their art was also influential in conditioning the American wilderness ethos.[14] In "*The Geography Lesson*: Photographs and the Construction of Imaginative Geographies," Joan Schwartz examines the complex and oscillating relationship between cultural practices and landscape photographs.[15] She explains that the manner in which a photographer photographs subject matter is influenced by imaginative geographies, which she defines as an accretion of empirical and non-empirical information. While an imaginative geography serves as a pretext that informs the photographer's idea of place and in turn the photograph, the image subsequently becomes a pretext that

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[9] Novak, *Nature and Culture*, 35.

[10] See also Cronon, "The Trouble with Wilderness," 69-78.

[11] Barbara Novak, *American Landscape Painting*, 7.

[12] Ibid., 15.

[13] For more information about the Hudson River School see *American Sublime: Landscape Painting in the United States, 1820-1880*, eds. Andrew Wilton and Tim Barringer (Princeton, New Jersey: Princeton University Press, 2002), and Payne Gallery of Morvian College, *The Hudson River School and the American Landscape Tradition,* art exhibition catalogue (Bethlehem, Pennsylvania: Payne Gallery of Morvian College, 1986), 1.

[14] See Deborah Bright, "Of Mother Nature and Marlboro Men: An Inquiry into the Cultural Meanings of Landscape Photography," in *Illuminations: Women Writing on Photography From the 1850s to the Present*, eds. Liz Heron and Val Williams (North Carolina: Duke University Press, 1996), 333-47.

[15] Joan M. Schwartz, "*The Geography Lesson:* Photographs and the Construction of Imaginative Geographies," *Journal of Historical Geography* 22 (January 1996): 16-45.

conditions the viewer's knowledge of place. Implicit in the photographic image is a cluster of ideas and concepts, and Schwartz's argument illustrates the importance of acknowledging and recognizing the multidimensional elements that are embedded within an image.

Like Schwartz, Alan Trachtenberg explores how cultural ideas inform the manner in which landscape photographs are conceived and perceived. In "Naming the View," [16] Trachtenberg investigates the survey photographs made by Timothy O'Sullivan for Clarence King's geological survey in 1870, and suggests that the written survey and the scientifically intended photographs serve as texts that both communicate and inscribe cultural ideas upon the landscape.[17] During the mid-19th century, the American western landscape garnered a reputation as a wilderness frontier.[18] Government officials were eager to exploit the rich natural resources for economic gain and introduce settlement in the western regions. O'Sullivan's survey photographs of the frontier were viewed as objective documents because of the scientific look of the subject matter, yet as Alan Trachtenberg demonstrates, the images are laced with a mythic language about nature. The mythic, or spiritual, is communicated innately by presenting nature as a peaceful and pristine landscape, and Trachtenberg surmises that King's Ruskinian doctrine of nature, which was rooted in religion, may have inspired O'Sullivan's perception of the wilderness.[19] In O'Sullivan's images, the scientific elements are the focal point, yet the sense of myth about the non-human realm further underpins the photographs. Trachtenberg's analysis stresses the importance of acknowledging the imaginative geographies that are implicit in the photographs, which in this case include scientific and religious elements.

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[16] Alan Trachtenberg, "Naming the View," in *Reading American Photographs: Images as History. Mathew Brady to Walker Evans* (New York: Hill and Wang, 1989), 119-163.

[17] To read another analysis of O'Sullivan's survey photographs see Rosalind Krauss, "Photography's Discursive Spaces," in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Massachusetts: The MIT Press, 1985), 131-150.

[18] I will not examine the frontier concept in detail; however, for more information about the frontier see Christine Bold, *Selling the Wild West: Popular Western Fiction, 1860-1960* (Bloomington: Indiana University Press, 1987); Carolyn Merchant, "Reinventing Eden: Western Culture as a Recovery Narrative," in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: W.W. Norton, 1995), 132-159.

American Nature, circa 1800s

Religious thought served as the foundation to the American definition of nature, and indeed the landscape paintings produced by the Hudson River School demonstrate a spiritually informed perception of wilderness. In 1835, Thomas Cole, deemed the first American Romantic landscape painter, wrote his seminal work about the American landscape titled, "Essays on American Scenery." Written in a manner that is reminiscent of the Gospels, he said:

> Prophets of old retired into the solitudes of nature to wait the inspiration of heaven. It was on Mount Horeb that Elijah witnessed the mighty wind, the earthquake, and the fire; and heard the "Still and small voice—that voice is yet heard among the mountains! St John preached in the desert; the wilderness is YET a fitting place to speak of God."[20]

Cole's reverent description of the non-human environment is definitive of the American conception of wilderness in the 19th century. Yet before nature was perceived as restorative, rejuvenating, or religious, it was regarded as a barren and denuded landscape.[21] Andrew Wilton suggests that because early explorers were unwilling to "accept nature in a naked, non-referential condition,"[22] American culture looked toward European civilization's conception of nature as a sublime landscape as a means to make sense of the wilderness.[23]

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[19] Trachtenberg, "Naming the View," 160-161. King was a supporter of catastrophism, a poetic doctrine which stated that the world was created by God. While several prominent scientists defended catastrophism, the theory stands in contrast to the uniformitarian theory, which promoted the concept of the slow geological change of the earth. See also Anne Hammond, "Ansel Adams and the High Mountain Experience," *History of Photography* 23 (Spring 1999): 89.

[20] Thomas Cole, "Essay on American Scenery," *American Monthly Magazine* 1 (1836): 1-12; quoted in Wilton and Barringer, *American Sublime*, 14.

As previously stated, the "Romantic-Gothick" sublime was appropriated and customized by American culture, and the Transcendental movement spearheaded by Henry Waldo Emerson illustrates the amalgamation of European traditions with American conventions. According to Transcendentalists such as Emerson, the landscape was sublime because it "was the physical embodiment of God."[24] As a Unitarian minister in Boston, Emerson applied his religious convictions to the natural environment. His seminal literary piece, "Nature," published in 1856, stresses the subjective experience of nature and in turn God: "Standing on the bare ground—my head bathed by the blithe air, and uplifted into infinite space—all mean egotism vanishes. I become a transparent eyeball; I am nothing; I see all; the currents of the Universal Being circulate through me; I am part or parcel God."[25] Emerson's literature became the cornerstone of the American definition of nature as a place of spirit. While

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[21] See William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature,* ed. William Cronon (New York: W.W. Norton, 1996), 69-90.

[22] Wilton and Barringer, *American Sublime*, 14. The concept of nature as a "healing mother" was also prevalent in Canada during the late 19th-century. See George Altmeyer "Three Ideas About Nature in Canada: 1893-1914," *Journal of Canadian Studies* 12 (1976): 21-36. Altmeyer explains that the three ideas about nature in Canada at the turn of the last century included nature as an infinite storehouse, nature as a benevolent mother, and lastly, nature as a healing temple.

[23] Wilton and Barringer, *American Sublime*, 14. Wilton defines the American adoption of European ideals as "associationism."

[24] Michael Lewis, "American View of the Landscape," *New Criterion* 18 (April 2000): 6. For more information about the American sublime see Michael J. Lewis, "American Sublime," *New Criterion* 21 (2002): 27-33, and Lynne E. Moss, "The Sublime Landscape," *American Artists* 66 (2002): 26-33.

[25] Henry Waldo Emerson, "Nature," in *Miscellanies Embracing Nature: Addresses and Lectures* (Boston: Phillips, Samson, 1856), 8; quoted in Payne Gallery, *The Hudson River School and the American Landscape Tradition,* 1. Emerson's quote was popular with the artists of the Hudson River

Emerson served as the inspiration for the American concept of nature, Quaker interest in and respect for nature served as the impetus to his pantheistic doctrine. Emerson's statement that he was "more of a Quaker than anything else"[26] serves as a conceptual link between the American idea of nature and Quakerism. Quakerism constitutes a significant sum of American history and thus has been an influential purveyor of cultural ideas about wilderness.

Quakers such as William Penn have long been regarded as honing "precious American ideals." [27] Penn was one of the first Quakers in America, settling in the "New World" in the mid 17th-century. His lengthy resume includes city planning,[28] maintaining positive relations between Native Americans and Quakers, establishing educational institutions, as well as governing all political aspects of the colonies. Historians contend that his "Declaration of Rights" influenced the language in which Jefferson wrote the "Declaration of Independence," and that Penn's "Charter of Privileges," created on October 28, 1701, served as the paradigm for the U.S Bill of Rights.[29] Quakerism is the model community upon which American values are

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School, who stated that it is the artist's responsibility to see the beauty in nature and communicate this onto the canvas.

[26] Theodor Benfry, *Friends and the World of Nature* (Wallingford, Pennsylvania: Pendle Hill Publications, 1980), 13.

[27] Quaker Information Center, "Quakers and the Political Process: Living Our Faith into Action," www.pym.org/exhibit/p078.html; accessed 25 October 2004.
William Wistar Comfort regarded William Penn as the founder of American ideals: "Penn, more than another individual founder or colonist, proved to be the chosen vessel through which the stream of demand for respect for individual rights was to flow so richly into our American reservoir."

[28] Ibid. Penn planned the city of Philadelphia on a grid chart and promoted fire and health safety. He is also known for creating "green countrie townes," city planning that incorporates the Quaker respect of nature.

[29] Ibid. For more information about Quaker history see Philip Benjamin, *The Philadelphia Quakers in the Industrial Age, 1865-1920* (Philadelphia: Temple University Press, 1976); John Punshon, *Portrait in Grey: A Short History of the Quakers* (London: Quaker Home Service, 1984); Henry Loukes, *The Quaker Contribution* (London: SCM Press, 1965).

formed, and the Quaker practice of benevolence played a significant role in defining the idea of nature as sublime.

Friends and Nature

The manner in which the Vauxes photographically depicted the landscape implies that there was a reverent respect for nature among the Quakers. Some scholars who study Quakerism have examined the impact that Quakerism has on its followers' conception of the natural environment. In his article, "The Quaker Background of William Bartram's View of Nature," Larry R. Clarke examines how the established Quaker tradition of experiencing and comprehending the wilderness informed Bartram's view of nature, which is illustrated in his literary work, *Travels* (1791). Clarke traces Quaker literature dating back to George Fox, the founder of Quakerism, to illustrate the pervasiveness of Quaker ideals for subsequent writers such as Bartram. Clarke states that:

> the influence of the Quaker tradition on Wm. Bartram was twofold. On the one hand, Quakerism gave Bartram his intuitive approach to both God and nature; on the other hand, Quakerism taught him that the close study of nature yielded not only useful knowledge but also a deeper understanding of life.[30]

Donald Brooks Kelly also explores the Quaker culture of nature in "The Evolution of Quaker Theology and the Unfolding of a Distinctive Quaker Ecological Perspective in 18th Century America," and "Friends and Nature in America: Toward an 18th Century Quaker Theology." Like Clarke, Kelly investigates the nature writing of celebrated Quakers such as William Penn, Robert Barclay and John Woolman in order to chart the roots of Quaker ecology. Kelly argues that early Quakers supported the idea of nature as God's creation, which inspired the practice of benevolence toward the non-human world.

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[30] Larry R. Clarke, "The Quaker Background of William Bartram's View of Nature," *Journal of the History of Ideas* 46 (July-Sept. 1985): 448.

Scholars argue that the concept of the inner light is the foundation to the Quaker practice of benevolence. George Fox developed the inner light concept as a means to articulate human communion with Christ. Distraught with the capricious and unstable religious milieu that defined the British Commonwealth period (1649-1660),[31] Fox turned toward the subjective experience of the natural world as a means to understand God.[32] In his seminal work, *Journal*, which was published posthumously in the late 1600s, Fox writes about his "opening" with God:

> Now was I come up in spirit through the flaming sword into the paradise of God. All things were new, and all the creation gave another smell that before, beyond what words can utter. I knew nothing but pureness, and innocence, and righteousness, being renewed up into the image of God by Jesus Christ…The creation was opened to me, and it was showed me how all things had their names given them according to their nature and virtue.[33]

Fox's "opening," which refers to the meaning of life and Scripture,[34] serves as the basis for the Quaker emphasis on experience with the human and non-human world as a means to garner an understanding of God. Unlike Protestants or Calvinists, Quakers did not follow Martin Luther's conviction of reading the Scripture alone to understand Christ, which was known as *Sola Scriptura*. Characterized as "apophatic theology," Quakerism is a branch of faith that regards experience as a more effective way to understand faith than reading concepts in the Scripture.[35] For Quakers, the experience of the inner light was manifest through personal introspection. Although Fox did not explicate the meaning of the light, he explained what it did: "It is the active principle of God within us, working for our salvation…sometimes light is from Christ, or else it is Christ."[36] Quakers believe that the inner light burns passionately within all human beings, so anyone, regardless of race, religion, or culture, can have this intensely personal and spiritual communion with Christ.[37]

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[31] "British Dates," www.johnowensmith.co.uk/histdate/; accessed 27 May 2005. The Commonwealth Period dated from 1649-1660.
[32] Clarke, "The Quaker Background," 438.
[33] Ibid., 440.
[34] Punshon, *Portrait in Grey*, 43.

The concept of the inner experience of the light was at its apex during the Quietist period (c. 1700-1800), a time which also yielded several pivotal Quaker writers and thinkers whose literature continued to guide Quakers in the 19th century. By the 20th century, distinctive Quakerness was muted by impeding secular society; however, the doctrine of the inner light and inward introspection continued to prevail with the introduction of mystic Quakerism, as expounded by the famous Quaker writer, Rufus Jones.[38] Jones' success reinforces Henry Loukes' comment that the Quaker "method" continued to exist within the "inside" well into the 20th century.[39]

The inner light experience serves as a stepping-stone for the development of benevolence: benevolence toward all of God's creatures nourished one's inner light. Since Quakers believe that God creates and loves all people equally, each of God's creations stand as equals before Him. The harmony envisioned between humans extended beyond the human realm to the non-human world as well because "God's love had no limits."[40] Nature was sacred because God engendered it, and even if God himself did not appear in the landscape, traces of His presence were implicit in the natural environment. The emphasis on accord between human and non-human is first documented in George Fox's journals and was subsequently articulated by pivotal Quakers including Woolman, Barclay, Benezet, Churchman, Evans, and Hunt.[41]

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[35] Clarke, "Quaker Background," 439. For more information about apophatic theology, see Valdimir Lossy, *The Mystical Theology of the Eastern Church* (Cambridge, England), 1973.
[36] Punshon, *Portrait in Grey,* 49. William Penn echoes Fox's sentiments when he stated that his inner light was cultivated at silent meeting houses, where he sat in silence and waited for the "Lord to breathe life into [me]…refresh [me]."
[37] Ibid., 49.
[38] Rufus Jones was a professor at Haverford College and published a plethora of books and articles about mystic Quakerism. See Rufus Jones, *The Luminous Trail* (New York: The MacMillan Company, 1947); *Studies in Mystical Religion* (London: MacMillan, 1907, reprinted New York: Russell and Russell, 1970.)
[39] Loukes, *Quaker Contribution*, 92.

In 1648, George Fox wrote:

> One morning as I was sitting by the fire, a great cloud came over me, and a temptation beset me; and I sat still. It was said, 'all things come by nature;' and the elements and stars came over me so that I was in a manner quite clouded with it…And as I sat still under it and let it alone, a loving hope and true voice arose in me which said, 'There is a living God who made all things'…[42]

Fox's work continued to resonate throughout the Quietist period; he was especially influential for John Woolman, who was instrumental in the Quaker community for his ministerial work. Take for example his seminal anti-slavery essay, "Some Considerations on the Keeping of Negros," published in 1754. Woolman vociferously fought for the equal treatment of all human beings and repeatedly refused the use of a slave; by the 1760s he extended his benevolence *zeitgeist* to the non-human realm. He discontinued wearing dyed clothing because of its adverse effect on the natural environment, and ceased riding in horse-drawn carriages during winter because of the grueling treatment of the animals during the cold winter months. In 1770 he published "Considerations of the True Harmony of Mankind," in which his interest and respect for the natural environment is unequivocal: "the outward supply of life is a gift from our heavenly Father, and that we should no more venture to use, or apply his gifts, in a way contrary to pure wisdom."[43]

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[40] Donald Brooks Kelly, "The Evolution of Quaker Theology and the Unfolding of a Distinctive Quaker Ecological Perspective in 18th century America," *Pennsylvania History* 52 (October 1985): 248.
[41] Ibid., 249.

The Quaker practice of benevolence was a fundamental aspect of the faith, and Quakers such as Mary, William and George Vaux Jr. were familiar with the writings on benevolence by earlier Quakers. In an email correspondence, Henry J. Vaux Jr., grandson of George Vaux, states that his relatives "surely read all of the Quaker literature on nature."[44] Such literature comprised the family's private library, but was also taught at the Friends' Select School.

Guarded Education

All three Vaux children received a Guarded Education—a standard Quaker practice.[45] Quaker theology serves as the foundation for the Guarded Education system, and an examination of the curriculum spotlights the faith's emphasis on encouraging utilitarianism, simplicity, equality, piousness, and benevolence. The education system was established as a means to reinforce solidarity among Quakers and maintain the distinct Quaker behavior and identity as the "world's people."[46] Until the early 1800s, Quaker schools enforced a strict agenda which expected both students

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[42] Benfry, *Friends and the World of Nature*, 13.

[43] All of the information in this paragraph is from *The Journal of John Woolman,* ed. Amelia Mott Gummere (London: MacMillan and Co, 1922), 457.

[44] Email from Dr. Henry J. Vaux Jr., 26 October 2004. Vaux also wrote that: "I feel certain that they would also have been familiar with Thoreau....[and] the writings of Frederic Law Olmsted."

[45] Because education is the cornerstone of Quaker culture, all Quaker children—regardless of their family's financial status—received a guarded education. In England, prosperous Friends funded schooling for Quaker children who came from less privileged families. See Kerri Allen and Alison Mackinnon, "Allowed and Expected to be Educated and Intelligent: The Education of Quaker Girls in Nineteenth Century England," *History of Education* 27 (December 1998), 391-402.

[46] Benjamin, *The Philadelphia Quakers in the Industrial Age*, 33.

and instructors to attend Meetings several times a week and limited reading material to the Bible and other salubrious literature such as Robert Barclay or William Penn's journals.[47] The rigid agenda that once defined the Quaker curriculum loosened in the mid-19th century[48] with the introduction of art and music classes in the curriculum. Literary works such as poems by Milton, Coleridge and Carlyle were approved by instructors;[49] however, this was most likely because Coleridge and Carlyle, amongst others, were heavily influenced by Quaker literature such as the journals written by Woolman and Fox.[50] Despite changes in the educational program, Quakers maintained religious teachings through the study of the natural world.[51]

Religion served as the impetus for the Quaker study of natural sciences which continued to serve as the yoke of the Quaker curriculum. Quaker interest in the natural sciences stems from George Fox's preoccupation with hermeticism—"the science of man, nature and of the cosmos with strong medical undertones."[52] Larry R. Clarke explains that Fox learned of hermeticism from his fellow Quaker and Paracelsus-zealot, Francis Mercurius van Hekmont. Quakers selectively adopted the Hermetic practice of studying minerals, plants, and animals.[53] Other scholars pick up where Clarke left off and state that subsequent Quakers such as Penn and Barclay lauded the study of natural science because of its utilitarian principles. Take Penn, for example: "it were happy if we studied nature more in natural things and acted accordingly to nature, whose rules are few, plain and most reasonable."[54]

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[47] Jean S. Straub, "Quaker School Life in Philadelphia Before 1800," *Pennsylvania Magazine of History and Biography* 89 (October 1965): 447-458. English Quaker schools used texts that were written by Quakers. For example, students were allowed to read journals as well as travel literature written by Friends. For more information about Quaker education see Allen and Mackinnon, "Allowed and Expected to be Educated and Intelligent," 391-402; W.A. Cambell Stewart, *Quakers and Education. As Seen in their Schools in England* (Port Washington: Kennikat Press, 1971); Patricia Philips, *The Scientific Lady: A Social History of Women's Scientific Interests, 1520-1918* (London: Weidenfeld and Nicholson, 1990); Thomas Woody, *Early Quaker Education in Pennsylvania* (New York: Teachers College, Columbia University, 1920).

[48] Punhson, *Portrait in Grey,* 170-174. There are many factors which contributed to the change in Quaker curriculum. John Punshon states that the "1827 Separation in Philadelphia" between the Hicksites and Orthodox Quakers is to blame. The Hicksite Quakers were most skeptical about Scripture as the sole means of learning about Christ; they were later rebutted by the Orthodox Quakers who buttressed theology and evangelical doctrines as a mode of learning about Christ. Philip Benjamin states that the Guarded Education was compromised when Quaker schools were forced to admit non-Quaker students into the Guarded Education program because of financial burdens. Benjamin, *Philadelphia Quakers*, 34-35.

[49] Stewart, *Quakers and Education,* 116-118.

[50] Benfry, *Friends and the World of Nature,* 22. Benfry quotes Coleridge who held Woolman's literature in high esteem. Coleridge wrote: "I should almost despair of the man who could peruse the life of John Woolman without amelioration of heart." Likewise, Carlyle was a strong proponent of George Fox's literature.

[51] W.A. Campbell Stewart, *Quakers and Education*, 131.

[52] Larry R. Clarke, "The Quaker Background of William Bartram's Nature," 440.

Studying nature was essential not only because it prevented the mind from corruption, believed to be a product of man-made society,[55] but also because of the religious undercurrents that define the natural sciences. For the Quakers, science and religion were similar discourses in that both dealt with the divine.[56] As proponents of Creation theory, Quakers today believe that God created the human and non-human world in His vision.[57] Likewise, they conclude that since nature "reveal[s] the operations of His Spirit,"[58] the study of nature is one way in which to experience God.

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[53] Ibid., 440-442.

[54] Loukes, *Quaker Contribution*, 76.

[55] Stewart, *Quakers and Education*, 148. George Fox contended that "outward things…were not durable riches, nor durable substance, nor durable habitations, nor durable possessions, for they have wings and will fly away." Kelly paraphrases Fox and further states that "Man must avoid the snares of the world…cultivate plainness, simplicity, humility…and mind 'that of God within.'" Donald Brooks Kelly, "Quaker Theology," 245.

[56] For information about the relationship between science, nature and God see Carl Berger, *Science, God and Nature in Victorian Canada* (Toronto: University of Toronto Press), 1976.

[57] Stewart, *Quakers and Education*, 148.

[58] Howard Brinton, *Emerson and Quakerism* (Wallingford, PA.: Pendle Hill, 1980), n.p; quoted in Benfry, *Nature and Friends*, 23.

Nature as a Place of Wonder[59]

The Quaker conviction of nature as the handiwork of God inspired the Vauxes' wonder and enchantment with the mountains and glaciers, and encouraged their perception of nature as sublime. According to Stephen Greenblatt, "the expression of wonder stands for all that cannot be understood,"[60] yet it was the ineffable quality which defined the non-human world that motivated the Vauxes' glacier studies. The Vauxes dedicated themselves to a lifetime of learning and inquiry, and their biographies are characterized by an intense interest in the world around them. After completing their formal education,[61] Mary, William, and George Jr. continued to learn about new technologies, and participated in charities as well as various educational organizations. Despite their broad and varied interests as individuals, the Vauxes shared a profound regard for the natural world. While I suggest that their faith was instrumental in piquing their interest in nature, Edward Cavell credits their uncle, William Sanson Vaux, with fuelling their mineralogy studies. Sanson Vaux's passion for minerals pervaded his public and private life; he served as curator and then vice-president of the Academy of Natural Sciences artifacts in the mid-1800s, and toured the world in search of minerals to add to his extensive collection.[62] Like their uncle, Mary, William, and George Jr. represent the Vaux family legacy of studying nature,[63] which they pursued as amateurs.[64]

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[59] Thomas Wharton, *Icefields* (Edmonton: NeWest Press, 2000). Thomas Wharton explores the idea of wonder in the landscape in his book, *Icefields*. In the narrative, each character's experience of nature is defined by a sense of wonder. The story begins with Dr. Ned Byrne falling into a deep glacial crevasse, and in a moment of serenity, he sees a seraph-like figure flutter in front of his eyes. To read a discussion of wonder in *Icefields* see Allan Hepburn, "'Enough of a Wonder': Landscape and Tourism in Thomas Wharton's *Icefields*," *Essays on Canadian Writing* (Spring 2002): 72-92.

[60] Stephen Greenblatt, *Marvelous Possessions: The Wonder of the New World* (Chicago: University of Chicago Press, 1991), 20; quoted in Hepburn, "Enough of a Wonder,"75-76.

[61] Cyndi Smith, *Off the Beaten Track: Women Adventurers and Mountaineers in Western Canada* (Canmore, Alberta: Coyote Books, 1989), 23-49. While George completed his post-secondary studies at the University of Pennsylvania and William at Haverford, Mary Vaux's opportunity to pursue an academic education came to a halt when her mother Sarah Morris Vaux passed away in 1880. Vaux acquired the role of matriarch and deftly managed the family homes in Bryn Mawr and Philadelphia. Mary Vaux completed ten years of study at the Friends Select School in Philadelphia from 1869-1879 and subsequently engaged in a lifetime of intellectual pursuits like her brothers.

Scholars such as Frances Backhouse argue that the Vauxes were the first researchers to pursue an abiding study of the Canadian glaciers.[65] While Rev. William Green began investigating the glaciers in Glacier National Park, British Columbia, in 1888, there were few other surveys conducted in the area between 1887 and 1897.[66] Members of the Geological Survey of Canada such as George Dawson and Joseph Tyrrell carried out random geological survey reports for the Canadian government in the 1880s,[67] but it was the Vauxes who first devoted themselves to a continuing study of the glaciers in the Banff-Glacier region along the C.P.R. line.[68]

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[62] George Vaux, "The Vaux Family's Scientific Pursuits," *Frontiers* 3 (1981-1982): 57-60

[63] Email from Dr. Henry J. Vaux Jr., 26 October 2004. Vaux suggested that their uncle Calvert Vaux was yet another family member who studied nature. Calvert Vaux was a landscape architect who partnered with Frederick Law Olmsted; together they transformed barren and denuded landscapes into socially desirable wilderness refuges located within city limits. Central Park and Niagara Falls are two examples of their famous designs. By fusing Transcendentalist theory with Utilitarian philosophy they fabricated wilderness landscapes which were designed to heal the body of all stresses generated from urban living. For more information about Calvert Vaux and Frederick Law Olmsted see Carol J. Nicholson, "Elegance and Grass Roots: the Neglected Philosophy of Frederick Law Olmsted," *Transactions of the Charles S. Pierce Society* 40 (Spring 2004): 335-349; Anne Wiston Spirn, "Constructing Nature: The Legacy of Frederick Law Olmsted," in *Uncommon Ground: Rethinking the Human Place in Nature,* ed. William Cronon (New York: W.W. Norton, 1996), 91-113. I would like to thank Dr. Henry J. Vaux Jr. for bringing this information to my attention.

[64] The 19th-century amateur was intelligent and well read in his or her subject area, devoted himself or herself enthusiastically to studies, and often the amateur's research was referenced by professionals. The amateur will be discussed in detail in the second chapter.

[65] Frances Backhouse, "Glacier House: A Loving Look at a Lost Lifestyle," *Canadian Geographic* 107 (1987): 39.

[66] William Putnam, *The Great Glacier and Its House: The Story of the First Center of Alpinism in North America, 1885-1925* (New York: The American Alpine Club, 1982), 37, 67. Rev. William S. Green was commissioned by the Royal Geographical Society of Britain to survey the Glacier region in 1888. Green was a also a member of the prestigious Alpine Club of London and Putnam credits him and his cousin—Rev. Henry Swanzy—as the first alpinists to attempt climbing the Canadian Rocky Mountains. Geo. and Wm. S. Vaux Jr., "Observation on the Illecellewaet [sic] and Asulkan Glaciers of British Columbia, *Natural Sciences of Philadelphia* 51 (1899): 122. The Vauxes honor Rev. Green as one of the first glaciologists to study the Illecillewaet Glacier. Green published his work *Among the Selkirks and Glaciers* in 1890. See also Cavell, *Legacy in Ice,* 14.

The family's abiding commitment to glaciology stems from their perpetual interest in the mountains and, in particular, glaciers as the creation of God. The glaciers are like great "ice beasts" in that they have snouts, tongues, toes,[69] as well as dragon-like tails; they come alive by slowly shifting their position, and they even have the ability to potentially swallow a visitor into their massive crevasses.[70] The Vauxes were drawn to the magical elements of the glaciers, and even their scientific documents reveal their awe of the luminous landscape. In a 1907 *Canadian Alpine Journal* article, "Glacier Observation," George and William proclaim: "Of all the phenomena that attract the nature lover in the high mountains, possibly none is more interesting or appeals more strongly to the imagination than the glaciers."[71] The words "imagination" and "phenomena" are especially important because they confirm the Vauxes' sense of wonder about the glaciers as other worldly, enchanting creations of God. The Quaker belief that one could experience God in nature further encouraged their vision of nature as a sublime.

The Vauxes' conviction that the mountain and glacier area is a sublime place is also communicated in their landscape photographs. Barbara Novak would agree with this claim, as she argues that there is a pictorial convention for depicting the sublime. Referring to the Hudson River School of artists, she demonstrates that scenes of stillness in the landscape best depict the sublime conception. Novak explains that images of tranquility symbolize the sublime idea, as silence in the landscape echoes silence of the soul.[72] While the "Romantic-Gothick" sublime perceived silence in nature as unsettling or frightful, the Christianized sublime of the late-19th century privileged quietude because it enabled introspection and communion with God.[73] The ethereal hush that blankets the landscapes painted by Hudson River School artists is also evident in the Vauxes' mountain and glacier photographs. Take for example *Castor Pollux etc with Asulkan stream in the foreground* (Fig. 3) or *Mount Assiniboine from camp* (Fig. 4). In both images the peacefulness in the landscape is reinforced by the stillness of water; in *Castor Pollux* the once rushing creek looks like fabric draped over the rocks, while the lake by *Mount Assiniboine* is at a standstill. The serenity in the landscape facilitates one's private communion with God, while the towering mountains in the background confirm the "littleness of man and the omnipotence of the Creator,"[74] as William Vaux once said. Despite the inevitable presence of tourists and the trappings of technology in the region—which includes both the C.P.R. in the parks as well as the camera to photograph the scene—the focus of these images is on the majesty of nature. The photographs facilitate the viewer's recognition of the ethereal qualities that permeate the wilderness. As Bruce Braun argues, "By situating the viewing subject behind the (absent) camera, looking out into the wilds, the image firmly situates that viewer *in* modern society and asks him or her to ponder the yawning gap between culture and nature."[75]

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[67] William E. Eagan, "The Multiple Glaciation Debate: The Canadian Perspective, 1880-1900," *The Journals of Earth and Science History* (1986) 5: 147.

[68] The Vauxes began their glacier studies in 1897 and subsequently published an article in the *Natural Sciences of Philadelphia Journal* in 1899. They continued publishing their updated research in *the Natural Sciences of Philadelphia Journal, Canadian Alpine Journal,* and the *Engineers Club of Philadelphia.* Despite their amateur rank, their studies were acknowledged by the Commission International des Glaciers.

[69] Cavell, *Legacy in Ice,* 14.

[70] I would like to thank Dr. PearlAnn Reichwein for her insightful and creative comments about the glaciers.

[71] George Vaux Jr., and William S. Vaux, "Glacier Observations," *Canadian Alpine Journal* 1 (1907-1908): 138.

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[72] Raymond Bernard Blakney, ed., *Meister Eckhart: A Modern Translation* (New York: Harper and Row, 1941), 97; quoted in Novak, *Nature and Culture*, 39.

[73] Novak, *Nature and Culture*, 34-46. Novak explains that scenes of unruffled water and of light further connote the sublime.

Conclusion

The Vauxes' photographs present the wilderness as a sublime solace, and as Barbara Novak explains, the late 19th century sublime landscape is defined as ethereal and spiritual, where "intimations of infinity and thus of Deity and divine" are provoked.[76] As this chapter has demonstrated, the Vauxes' perception and depiction of the sublime wilderness was conditioned by their Quaker faith. In particular, the practice of benevolence is central to this discussion because it galvanized the Vauxes' imagination about nature, and especially glaciers, as the handiwork of God. The Vauxes were intrigued with the glaciers' anthropomorphic qualities, such as their ability to move, but most importantly, the family's first hand experience of the glaciers confirmed the Quaker belief that God existed in the landscape. The concept of the sublime landscape was not only a Quaker philosophy, as it also permeated the late 19th century American wilderness ethos. Scholars such as Alexander Wilson and Barbara Novak have investigated the nexus between nature and religion, and indeed artistic landscape production can play an important role in shaping conceptions about the non-human world. In keeping with the imaginative geography theory, however, the definition of nature is influenced by a constellation of ideas. While this chapter has focused on the religious connotations that inspired the Vauxes' perception of nature—

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[74] William S. Vaux Jr., "Climbing in the Selkirk Mountains," *The Minneapolis Journal,* 24 December 1898, n.p, Whyte Archives, M107/accn. 7202.

[75] Bruce Braun, *The Intemperate Rainforest: Nature, Culture and Power on Canada's West Coast* (Minneapolis and London: University of Minnesota Press, 2002), 129.

and indeed I argue that Quakerism serves as the foundation to their idea of nature—other factors such as empirical knowledge are equally important in defining the idea of the non-human world. The following chapter will carry on the imaginative geography concept by investigating the role of science in shaping the Vauxes' perception of nature, and how their purist photography practice mediated the scientific and artistic elements that are embedded in their landscape photographs.

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[76] Novak, *Nature and Culture*, 34.

Chapter Two

"Art Born of Science"[1]; or, The Fine Art of Documenting Nature

> *The views obtained from the porches and windows is one so grand and so extended that one is entirely unable to appreciate much less to describe them. This finest is to be had from the band stand on the North side of the house, where may be seen such a combination of rock, tree, sky and water as is not equaled probably anywhere in America. First 100 feet below you are the Spray Falls of the Bow River, a cascade perhaps fifty ft. high after passing which the bright water of the river is dashed into foam.*
>
> *But it is useless to try to describe the grandeur and the impressiveness of these scenes. They must be seen to be appreciated, they must be studied to be understood. Each hour of the day—each passing cloud even—adds new charms and changes the aspects of the scenes till one is almost bewildered with the beautiful and sublime work of Nature of which he is surrounded.*[2]

William S. Vaux Jr. wrote this journal entry during one of his family's Canadian Pacific Railway sojourns to the Selkirks and Rockies in the summer of 1894. This eloquent passage speaks to his fascination and rapture with the wilderness, and while Vaux attempts to articulate the beauty that defines the Rocky Mountain ranges, his apprehension that the written word lacks the power of description is evident. For this reason, the Vauxes complemented their written commentary with visual images; indeed the Vauxes, like many others of the Victorian era, subscribed to the notion that seeing is believing. The art of looking is closely associated with the Vauxes' interest in photography because they believed that looking at photographs of nature not only sponsored an "appreciation" of the wilderness but also fostered an insight into understanding nature. The Vauxes were spellbound with the notion of comprehending the transcendental aspects of the wild landscape, and as advocated by their Quaker faith, this was achieved by experiencing nature.

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[1] From 25 April- 13 October 2003, the Whyte Museum of the Canadian Rockies held an exhibition about the Vaux family's Selkirk and Rocky Mountain photographs. Titled, *Art Born of Science: The Vaux Family Amidst Mountains and Ice, 1887-2002, The Vauxes as Photographers.*

[2] William S. Vaux Jr., journal entry from a C.P.R. trip, 4 July 1894, 17, Archives and Library of the Whyte Museum of the Canadian Rockies, M107/accn. 7202.

William's comments mirror his family's landscape photographs in that both communicate the accretion of artistic and scientific qualities. On the one hand the photographs reveal the essence of the wilderness, or as William wrote, "the beautiful and sublime work of Nature," while on the other hand there is a desire to study the landscape and thus present it in a scientific, unmediated manner. The elements of emotion and observation that distinguish the family's mountain and glacier photographs are fed by the Vauxes' rich definition of nature as a sublime wilderness, a perception that was encouraged by a constellation of ideas including those of Quaker faith and empirical knowledge. The symbiotic relationship between art and science that defines the Vauxes' images is mediated by the purist, also known as straight, photography aesthetic, a photography practice in which the detailed look of the print is complemented by the poetic vision of the photographer. I contend that the purist aesthetic facilitated fluidity of meaning in the photographs as both expressive and descriptive entities. This chapter, then, is about recognizing the concomitance of art and science that defines the family's photographs of the sublime wilderness.

A Theoretical Guideline on How to Read a Photograph

While I argue that the Vauxes' photographs are interlaced with a sense of wonder about the wilderness as a sublime landscape, there is a scientific dimension that adds breadth to their photographs. The Vauxes were fascinated with glaciers, and their scientific interests—in addition to their reverence toward nature—informed their vision of the landscape. John Kirtland Wright, a cultural geographer who is noted for his theory of geosophy,[3] articulated the idea that the practice of exploration is cultivated by both imagination, which he defined as non-empirical knowledge, and by facts, or empirical knowledge. Kirtland Wright's theory has been transcribed and re-articulated within the capacity of the photographic medium by Joan Schwartz. In "Imaginative Geographies," Schwartz argues that geographical knowledge—which is a fusion of empirical and non-empirical information—is inscribed in tour books, travel writing, letters, and even works of fiction, and serve as pretexts that inform photography.[4] Conversely, the photograph eventually becomes a pretext upon which space and place are informed and identified.[5]

The Vauxes' landscape photographs embody Schwartz's idea of imaginative geographies because they are multifarious texts that represent a blend of both empirical and non-empirical information. Given the multidimensional elements that comprise an image, how, then, do we read and perceive a photograph? In "Looking at Photographs," Victor Burgin favors a semiotic approach to reading photographs, which he suggests offers a complete understanding of the image.[6] Burgin buttresses semiotics because "the photograph is a place of work, a structured and structuring space within which the reader deploys, and is deployed by, what codes he or she is familiar with in order to make sense."[7] Burgin's statement is imperative because it singles out the importance of the viewer and his or her convictions in the viewing process. Estelle Jussim and Elizabeth Lindquist-Cock would agree with his sentiments. In "Landscape as Fact," Jussim and Lindquist-Cock focus on the audience as the "most important member of the transaction," because it is the idiosyncratic viewer, each conditioned by "their own vastly differing socioeconomic, political, and religious contexts,"[8] who casts his or her ideas on to the photograph. The meaning of the photograph is fluid and depends on the viewing context, and as Abigail Solomon-Godeau states, the overarching historical framework must also be taken into account when reading a photograph. In "Who is Speaking Thus? Some Questions about Documentary Photography," Solomon-Godeau argues that "to make sense of documentary we need to examine it from three perspectives. As a historical construction it must be situated within the framework of its contemporary discourses, practices and uses."[9] Following in the footsteps of these writers, I will examine the role of the historical context, audience, and exhibition space apropos the Vauxes.

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[3] For more information about Kirtland Wright and Geosophy see *Geographies of the Mind: Essays in Historical Geosophy, In Honor of John Kirtland Wright,* eds. David Lowethal and Martyn J. Bowden (New York: Oxford University Press, 1976).

[4] Joan M. Schwartz, "*The Geography Lesson:* photographs and the construction of imaginative geographies," *Journal of Historical Geography* 22 (January 1996): 16-45.

[5] Ibid., 31. For more information about the difference between space and place see Eric Hirsh, "Introduction: Landscape: Between Place and Space," in *The Anthropology of the Landscape: Perspectives on Place and Space,* eds. Eric Hirsh and Michael O'Hanlon (Oxford: Claredon Press, 1995), 1-30. See also Joel Snyder, "Territorial Photography," in *Landscape and Power,* 2nd ed., W.J.T. Mitchell ed. (Chicago and London: University of Chicago Press, 2002), 175-202. Snyder contends that cultural practices informed Carlton Watkins' mountain landscape photographs and Timothy O'Sullivan's prairie pictures. Watkins was working within an established pictorial tradition of mountain landscapes, and for this reason his photographs were accepted by the viewing audience. By contrast, while there was no definitive pictorial tradition for rendering the prairies, the societal prejudice that it was a barren and denuded landscape dictated O'Sullivan's conception of the landscape. Social values about the landscape dictate the manner in which landscape is rendered, and the photographs in turn shape social conceptions about the landscape.

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[6] Victor Burgin, "Looking at Photographs," in *Thinking Photography*, ed. Victor Burgin (London: Macmillian, 1982), 142-153.
[7] Ibid., 153.
[8] Estelle Jussim and Elizabeth Lindquist-Cock, *Landscape as Photograph* (Yale: New Haven University Press, 1980), 45.
[9] Abigail Solomon-Godeau, "Who is Speaking Thus? Some Questions about Documentary Photography," in *Photography at the Dock. Essays on Photographic History, Institutions, and Practices* (Minneapolis: University of Minnesota Press, 1991), 170.

Art, Science, and Photography

Developed in 1839, the camera was extolled and promoted by its supporters as a multi-functional and innovative tool. Dominique François Arago, Deputy of the East-Pyrénées, was an advocate of the daguerreotype, and his 1839 "Report" showcases his enthusiasm for photography. Arago presented his study to the French Chamber of Deputies in which he explained that the daguerreotype successfully achieved the following guidelines:

> 1. Is the process of M. Daguerre unquestionably an original invention?
> 2. Is this invention one which will render a valuable service to archaeology and the fine arts?
> 3. Can this invention become practically useful? And, finally,
> 4. Is it to be expected that the sciences may derive advantage from it?[10]

Points number two and four are most useful for this discussion because he is suggesting that photography can be used in both an artistic and scientific capacity. By the late 19th century, Arago's vision had materialized in that photography was championed by artists as a subjective medium that expressed human emotion, while scientists lauded its ability to serve as an objective document useful for communicating information.

It comes as no surprise that there was a lot of pressure placed on photography as a scientific instrument in the late-19th century. The era is characterized by scientific and technological advancements that sought to make the quest for objective information attainable. Deborah Bright further notes that the camera was an ideal tool for Victorians because its "material chemistry and apparatus [was] felt to guarantee the scientific truth."[11] People were spellbound by the camera's ability to "scientifically measure" the world,[12] and so it was natural that it was used to document the surrounding milieu. As Solomon-Godeau says, "for the 19th century minds the very notion of documentary photography would have seemed tautological."[13] People were fascinated with the photograph's ability to present a focussed and sharp image replete with detail: the mechanical eye of the lens trumped the human eye of the painter. As an example, French physician and scientist Alphonse Donné reported that "not a single minute detail was missing from my picture and the magnifying glass discovered that throng of microscopic objects that the naked eye would look for in vain."[14] It was scientists such as Donné who advocated the scientific excellence of photography, while artists such as David Octavius Hill, Peter Henry Emerson, and most notably Alfred Stieglitz promoted the artistic merits of photography.

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[10] Dominique François Arago, "Report," in *History of Photography*, Joseph Maria Eder, trans. E. Epstean (Columbia University Press, 1945, 1972), 233-41; reprinted in *Classic Essays on Photography*, Alan Trachtenberg ed. (New Haven, Conn.: Leete's Island Books, 1980), 15-16.

In the late 19th century, Alfred Stieglitz advocated the pictorialist movement, which treated photography as a fine art and the photographer as an artist. Pictorialist images at the turn of the last century mimicked the graphic arts, an effect achieved by the manipulation of the negative during the printing process; this engendered the pictorialist sobriquet "fuzzy-wuzzies."[15] Pictorialism is complimented by another fine art aesthetic called purism, also known as straight photography. Like pictorialist photographs, purist images communicate the photographer's poetic vision and thus are underpinned with emotional elements. Unlike pictorialists, however, purist photographers do not physically manipulate the print, thus favoring a detail orientated and sharply focussed image. Both pictorialism and purism fall under the category of Pictorialism, which as Bonnie Yochelson states, is "not a particular style but rather a practice of photography as a fine art and as a means of personal expression."[16] Stieglitz's pictorialist movement was comprised of amateur photographers including the Vauxes, and while the family incorporated pictorialist principles into their images, they also explored the camera's ability to function within a scientific discourse.

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[11] Deborah Bright, "The Machine in the Garden Revisited," *Art Journal* 51 (Summer 1992): 60-72.
[12] Maria Pelizzari, 'Retracing the Outlines of Rome: Intertextuality and Imaginative Geographies in 19th century Photographs," in *Picturing Place: Photography and the Geographical Imagination*, eds. Joan Schwartz and James R. Ryan (London and New York: I.B. Tauris, 2003): 61-2.
[13] Solomon-Godeau, "Who is Speaking," 170.
[14] Alphonse Donné, "Le Daguerréotype," *Le Voleur* (Paris, 31 August 1839): 189; quoted in James Borcoman, "Purism versus Pictorialism. The 135 Years War," *ArtsCanada* 31 (1974): 70-1.

Like their colleagues, the Vauxes applied photography to both artistic endeavors and scientific uses. As amateur photographers working in Philadelphia at the turn of the last century—which at this point was the cultural center of the United States—the Vauxes were part of an intellectual community of amateurs that constituted "men of business, science, and art." [17] In "Romantic Origins of American Realism: Photography, Arts and Letters in Philadelphia, 1850-1875," Mary Panzer explains that like their British counterparts, gentlemen and women in Philadelphia busied themselves with erudite endeavors such as the amateur study of the natural sciences and the amateur practice of art. Because the camera could function as a tool of art and science, Panzer states that the intellectual community welcomed the innovation of photography with open arms.[18] The amateur photography fellowship was nurtured by the presence of photographic salons, clubs, and journals such as *The*

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[15] Ibid., 78.
[16] Bonnie Yochelson, "Clarence White Reconsidered: An Alternative to the Modernist Aesthetic of Straight Photography," *Studies in Visual Communication* 9 (Fall 1983): 25.
[17] Mary Panzer, "Romantic Origins of American Realism: Photography, Arts and Letters in Philadelphia, 1850-1875," (Ph. D. diss., Boston University, 1990), 45.
[18] Ibid., 45.

Philadelphia Photographer, the first photography publication.[19] The constellation of cultural influences that permeated the photography milieu in Philadelphia implies that the notion of imaginative geography was inevitable in an amateur's work.

Photography as Science

One can only imagine what the Vauxes saw on July 16th, 1887, the day that they first arrived at Glacier House in the Selkirk Mountains of British Columbia, located 285 kilometers northwest of Banff.[20] Although their stay at the famous C.P.R. meal stop (and later resort) was brief, the Vauxes managed to explore the Illecillewaet glacier and photographically record its features.[21] This marked the commencement of a long relationship with the glaciers. The Vauxes made preliminary photographs of the Illecillewaet in 1887, and while they were not yet familiar with the Illecillewaet's recession, something inherent in the ice-landscape enticed them to return and photograph it again in 1894.[22] Their findings demonstrated a dynamic change in the position of the ice; this research was published in the *Natural Sciences of Philadelphia Journal* in 1899. In the first article, "Observation from Glacier House," they explain the method used to study the recession of the Illecillewaet and Asulkan, which included photographing the glaciers, then labeling and measuring the retreat of the glacial snout. The photographs were imperative to the Vauxes' research, for as William wrote: "photography seems to offer the most satisfactory means of permanently recording the position of the ice from year to year."[23]

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[19] *The Philadelphia Photographer* was the first photography journal and it was published from 1864-1888, it was succeeded by *Wilson's Photographic Magazine* (1889-1914) which was subsequently proceeded by *Photographic Journal of America* (1915-1933). Panzer writes that Philadelphia was the center for illustrators and publishers and was home to various publications such as *Godney Lady's Book, Graham's Magazine, Peterson's Magazine, The Eclectic, The Iris.* See Panzer *Romantic Origins,* 32.

[20] Glacier House, located in Glacier National Park, British Columbia, was first developed as a meal stop for travelers on the C.P.R. route. Originally, the House included one large dining room and six rooms; by 1892 the railway expanded the Glacier House hotel to include a sleeping car and 32-bedroom annex. While the C.P.R. location offered a luxurious dining experience, it was the scenery that visitors sought. In fact, guests often preferred to camp in the out of doors rather than reside in the comforts of the hotel. Excerpts from the "Glacier House Scrapbook" are reprinted in Edward Cavell's *Legacy in Ice* and include a sample of the diary entries guests would leave in the now-famous scrapbook. The book documents various travelers from around the world—from England to Hawaii. Men, women, and children scribbled their memories and accounts of their glacier experiences in the scrapbook. It is from these vivid accounts that one can piece together an idea of what it was like to experience the Glacier House. While Glacier House was permanently closed in 1925, its legacy lives on in the written and visual documents. For a history about Glacier House see William Putnam, *The Great Glacier and Its House: The Story of the First Center of Alpinism in North America, 1885-1925* (New York: The American Alpine Club, 1982), and Frances Backhouse, "Glacier House. A Loving Look at a Lost Lifestyle," *Canadian Geographic* 107 (August/September 1987): 35-41. Some scrapbook entries are reproduced in Edward Cavell, *Legacy in Ice*, 1983.

[21] Geo. and Wm. S. Vaux Jr., "Some Observation on the Illecillewaet and Asulkan Glaciers of British Columbia," *Natural Sciences of Philadelphia* 51 (1899): 122.

In addition to articles published in *The Natural Science of Philadelphia Journal*, they issued their findings in the *Canadian Alpine Journal* and *The Engineers Club Journal.* Updated photographs, charts, and maps were included to add breadth to their studies (see Appendix I). An article from 1907, "Glacier Observations," showcases the evolution and scope of their research. William and George write:

> Our work has consisted:
> (a) In mapping the end of the glacier, with its several moraines and surroundings, showing their conditions through a number of years.
> (b) Taking a series of "test photographs" in successive years, from the same position.
> (c) Measuring the amount of recession from year to year.
> (d) Measuring the rate of flow.[24]

Like "Glacier Observations," "Modern Glaciers," which was published in the 1909 issue of the *Canadian Alpine Journal,* charts the family's glacier studies. According to Edward Cavell, however, it was William's final and "most important monograph," as it reveals his enchantment with and scientific interest in "the great ice beasts."[25] It has a didactic quality because it explains the glaciology discipline, at the same time demonstrating Vaux's adept knowledge of the glaciers. He introduces French glacier terminology such as *névé*, *crevasse*, and *sérac*, and includes photographs of glacier features to further clarify the terms. For example, *Séracs, Illecillewaet Glacier* (Fig. 5) is used in partnership with the written word to supplement their discussion. He writes:

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[22] In a speech addressed to the Appalachian Mountain Club on February 14, 1900, William and George Vaux Jr. explained that they visited the Great Glacier in 1887, 1894, 1897, 1898, 1899. They write that "on each of these occasions we have taken numerous photographs of the glacier, and in addition have made measurements and other observations…" William and George Jr.'s passage is quoted in William Putnam, *The Great Glacier and Its House: The Story of the First Center of Alpinism in North America, 1885-1925* (New York: The American Alpine Club, 1982), 82. See also Cavell, *Legacy in Ice,* 14.

[23] Geo. And Wm. S. Vaux Jr., "Some Observations on the Illecillewaet and Asulkan Glaciers," 123.

> Crevasses may run in any direction, and often form a maze on the ice surface through which it is hard to thread a way, and where the greatest caution is necessary. When these cracks occur at angles to each other pannicles [sic] of ice are formed. Melting takes place on the four sides thus exposed to the air, and *séracs* are formed, named from a fancied resemblance to clotted cream. These often assume the most fantastic shapes after the erosion of wind and water has worn them away.[26]

A historiography of glaciology is also included, thus orienting the reader to the tradition of the discipline, which William explains dates to the early 19th century. William lists his lengthy glacier bibliography, which includes seminal research by DeSaussure, Louis Agassiz,[27] J.D. Forbes, Rendu, Tyndall, Croll, F.F. Forel of Lausanne, as well as "Bruchner, Richter, Finsterwalder, Forel, Reid, Hess, Russell, and many others [who] have contributed to the general store of [glacier] knowledge."[28] This literary review is in addition to other literature about the "science of geology"[29] with which the Vauxes would have been familiar. Given their educational background and fascination with the topic, the Vauxes, like many other amateur glaciologists, would have been familiar with the polemical glacier theories in competition with one

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[24] Geo. And Wm. S. Vaux Jr., "Glacier Observations," *Canadian Alpine Journal 1* (1907-1908): 140.
[25] Cavell, *Legacy in Ice,* 14.
[26] Wm. S. Vaux, "Modern Glaciers," *Canadian Alpine Journal* 2 (1909): 60.
[27] For more information about Agassiz's theories see Ralph W. Dexter, "Historical Aspects of Agassiz's Lectures on Glacial Geology (1860-1861)," *Journal of the Earth and Sciences History* 8 (1989): 75-9.
[28] Wm. S. Vaux, "Modern Glaciers," *Canadian Alpine Journal* 2 (1909): 67-69.

another at the time: the catastrophe theory versus the uniformitarian glacial theory. As Anne Hammond explains, "Sir Charles Lyell's uniformitarian geological theory proposed a slow self-sustaining continuity of change over aeons when the prevailing philosophy was that of catastrophism, which held that geologic time had been initiated by the hand of the Creator."[30]

Before "Modern Glaciers" was published in the *Canadian Alpine Journal*, it made its debut in a 1907 issue of the *Engineering Club Journal*. William, an engineer by profession, was no stranger to the organization as in 1900 he presented a lecture and published an article for the club about the development of the C.P.R. from Laggan to Revelstoke.[31] Like the 1900 publication, "Modern Glacier" was intended for an engineering audience. William explains that the objective of the article is to "explain what a glacier is, illustrat[e] its principle characteristics" and discuss the family's research;[32] thus the image worked in partnership with the written information to explicate glacier mechanics. For an engineer, then, *Séracs, Illecillewaet Glacier* functioned as a scientific document supplementing Vaux's pedagogical discussion about the glaciers. The detailed, focussed look of the print would have further reinforced that it served as a tool for explanation. As Solomon-Godeau, Jussim, and Lindquist-Cock suggest, the overarching context in which the images were situated is essential for shaping the meaning of the photograph. In this context the expressive

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[29] Ibid., 56.

[30] Anne Hammond, "Ansel Adams and the High Mountain Experience," *History of Photography* 23 (Spring 1999): 89.

[31] George Vaux, "William S. Vaux, Jr.," *Canadian Alpine Journal 2* (1909): 124-7. In the spring months of 1900, William presented a lecture to the Engineers Club about the challenges of developing the C.P.R. in the Laggan and Revelstoke regions. Vaux's presentation is reprinted in Wm. S. Vaux, "The Canadian Pacific Railway from Laggan to Revelstoke, British Columbia," *Engineers Club of Philadelphia* 17 (May 1900): 64-86.

[32] Wm. S. Vaux, "Modern Glaciers," *Canadian Alpine Journal* 2 (1909): 56.

elements that inform the photograph are overlooked, but this is not to say that they are non-existent.

The imaginative geographies that underpin the Vauxes' photographs are also echoed in their written documents. In "Retracing the Outlines of Rome: Intertextuality and Imaginative Geographies in 19th century Photographs," Maria Antonella Pelizzari demonstrates the importance of investigating text, especially when it is associated with images. Pelizzari explains that when an image is paired with literature, the two entities become one pretext that work together to shape the reader's perception of place.[33] Apropos of the Vauxes, then, it is not only the image but also the journal articles and correspondence that showcase imaginative geographies.

Colorful and vivid written accounts document their captivation with the large shards of ice and rock, and their loving words about the glaciers are often recollected in the scientific articles written for the *Canadian Alpine Journal*. Several of the Vauxes' articles begin by affirming their admiration of the glacial landscape. For example: "it was [William's] enthusiasm and love of nature which caused us first to enter upon them"[34]; or, "of all the Phenomena that attract the nature lover in the high mountains, possibly none is more interesting or appeals more strongly to the imagination than the glaciers."[35] The expressive vocabulary used to demonstrate their fascination with nature is complemented by empirical facts that are peppered throughout their publications:

> We had provided a number of square steel plates, painted bright red and lettered for identification. With the assistance of a transit these were laid out across the glacier in a straight line, and at points as nearly as equidistant as

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[33] Maria Antonia Pelizzari, "Outlines," 72.
[34] George Vaux, "Observations on Glaciers in 1909," *Canadian Alpine Journal* 2 (1909): 126.
[35] Geo. and Wm. Vaux Jr., "Glacier Observations," *Canadian Alpine Journal* 1 (1908): 138.

> possible. Some days later, and again in subsequent years, the position to which the ice had carried these plated was measured by trigonometric methods, and then the rate of flow calculated. [36]

Even journal accounts demonstrate the fusion of science and sentiment. A journal entry by George Vaux titled the "Ottertail Group" blends factual spatial information with descriptions of the sublime landscape:

> The whole snow covered summit of Mt. Vaux is a conspicuous and magnificent object from the Emerald Lake region and the heights opposite Field, and also looks well from the railroad trail below the station. Mt. Chancellor, as it rears its precipitous dark cliffs and pyramidal summit 6800 feet above the river, cannot fail to impress the traveler as he passes Leanchoil or approaches eastwards from Palliser.[37]

The Vauxes' profound fascination with the wilderness as a place of spirit fed their glacier studies, and for this reason both artistic and scientific elements are implicit in their written observations. The imaginative geographies not only give breadth to their writing and images, but also create an ambiguity in the meaning of each entity. Since the image and written word are imaginative geographies, they can evoke disparate perceptions based on the audience and viewing environment. As Solomon-Godeau, Jussim, and Lindquist-Cock demonstrate, the viewing context is imperative in shaping conceptions about images, and although the engineering audience extracted the empirical evidence from the photograph, *Séracs, Illecillewaet Glacier* is permeated with a sense of wonder about the landscape. A viewing audience in an artistic milieu could recognize the poetic elements in addition to the descriptive qualities that distinguish the family's photographs.

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[36] Ibid., 144.

[37] George Vaux, "The Ottertail Group," 9, not dated, Whyte Archives, M107/accn. 7202. The Ottertail range refers to a group of mountains that are " bounded by the Ottertail River to the northeast, the Beaverfoot River to the southwest, the Kicking Horse River to the northwest, and the Moose River to the southeast." In an 1886 map, George Dawson defined the "Ottertail" mountains as those that are

Photography as Art

As amateur photographers in Philadelphia, the Vauxes participated in various fine art photography clubs and exhibitions. As previously mentioned, Philadelphia was the center of cultural production in the United States at the turn of the last century, and amateur photography thrived in the intellectual community. The presence of publications such as *Wilson's Photographic Magazine*, and the Philadelphia Photography Salon further promoted and supported amateur endeavors. Unlike what contemporary usage of the term suggests, the amateur of the late-19th and early-20th centuries was an enthusiastic, knowledgeable, and respected devotee to photography.[38] In an issue of *Wilson's Photographic,* Henry J. Newton extols the virtues of the early amateur photographer:

> To succeed then meant hard work and study. You were required to know how to make almost everything connected with the production of a photographic print. You must know how to make a collodion; how to coat a plate and sensitize and develop it; how to construct a silver bath for sensitizing the albumen paper; to fume, print, tone and fix the prints; how to make paste, and how to mount prints.[39]

The printing process was made easier with the introduction of the Kodak camera in 1888, and amateur photographers, especially women, continued to explore photography as a creative outlet.[40] Amateur photography clubs were forming across

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located in between Beaverfoot River and Ice River. See Dave Birrell, "Ottertail Range," Peak Finder, http://www.peakfinder.com.

[38] To read more about the amateur see Paul E. Desautels, "The Amateur Tradition in Mineralogy," *Frontiers* 3 (1981-1982): 53-54; Caryl P. Haskins, "The Flame of the Amateur." *Frontiers* 3 (1981-1982): 1-8; George Vaux, "The Vaux Family's Scientific Pursuits." *Frontiers* 3 (1981-1982): 57-60.

[39] Henry J. Newton, "The Amateur," *Wilson's Photographic Magazine* 26 (2 March 1889): 187.

[40] For more information about women amateur photographers see C. Jane Gover, *The Positive Image: Women Photographers in the Turn of the Century America (*Albany: State University of New York Press, 1988), *Illuminations: Women Writing on Photography From the 1850s to the Present*, eds. Liz Heron and Val Williams (Durham: Duke University, 1996), and Lilly Koltun, ed. *Private Realms of Light, Amateur Photography in Canada, 1839-1940* (Toronto: Fitzherny and Whiteside, 1984).

the United States and Canada,[41] and Philadelphia was no exception. In fact, it was the lively amateur fellowship in Philadelphia that enticed Alfred Stieglitz to engage in that city's art photography milieu.[42]

The apotheosis of the amateur photographer was the key element in Stieglitz's strategy for promoting photography as a fine art. He argued that only amateur photographers produced emotionally-driven photographs, which was the cornerstone of the pictorialist aesthetic. In an 1899 issue of *Scribner's Magazine,* he explained that "nearly all the greatest work is being, and has always been done, by those who are following photography for the love of it, and not merely for financial reasons. As the name implies, an amateur is one who works for love."[43] Since the amateur engaged in photography as a means to nurture his or her soul rather than to fill his or her bank account, Stieglitz argued that amateur photographers were more expressive and creative than those who were working for money.[44] The amateur photography community was the nexus that brought Stieglitz in contact with the Vauxes.

George Vaux met Alfred Stieglitz in 1898, the year that Vaux served on the Philadelphia Photographic Salon committee, and as William Innes Homer writes, he was "known and respected by Stieglitz."[45] Likewise, members of the committee admired Stieglitz and his ideas such as implementing the European Art Salon model in Philadelphia.[46] The Philadelphia Salon quickly gained respect on a national scale, and to exhibit a photograph in the show was a mark of achievement as only "juried photographs of artistic merit were included."[47] Competition was fierce: only 259 photographs were selected from the 1,500 that were submitted by amateur photographers from across the United States and Europe.[48] Although Stieglitz remained in the "background" of the Salon scene, his pictorialist ideas gained momentum and were adopted by photographers.[49]

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[41] See Ralph Greenhill and Andrew Birrell, *Canadian Photography. 1839-1920* (Toronto: Coach House Press, 1979).

[42] Alan Trachtenberg, ed. *Classic Essays on Photography* (New Haven, Conn., Leete's Island Books, 1980), 115. In his introduction to Stieglitz's "Pictorial Photography," (1899), Trachtenberg explains that "Stieglitz plunged into the community of amateurs." Stieglitz also edited various publications for amateur photographers such as the *American Amateur Photographer*, the Camera Club's *Camera Notes*, and subsequently *Camera Work*.

[43] Alfred Stieglitz, "Pictorial Photography," *Scribner's Magazine* (Nov. 1899): 528-36; reprinted in *Classic Essays on Photography*, ed. Alan Trachtenberg (New Haven, Conn., Leete's Island Books, 1980), 116.

[44] Stieglitz had a strong alliance with art photography critics such as Charles Caffin and Sadikichi Hartmann who frequently publicized their comments about the imperative role of the amateur in fine art photography. As an example, in 1907 Hartmann reprimanded Gertrude Käsebier, a well known Pictorialist photographer, for her commercial photography practice; see Barbara Michaels, *Gertrude Käsebier: The Photographer and her Photographs* (New York: Harry N. Abrams Inc., 1992). To read

At the 1899 Salon, Mary Vaux exhibited a landscape photograph heavily influenced by pictorialist subject matter.[50] Titled *The Meadow Road in Spring* (Fig. 6), this platinum print depicts a bucolic scene of a dirt road wending its way through a series of trees in bloom.[51] Vaux's admission to the second salon was a triumphant personal accomplishment because not only was her image was one of the 182 amateur photographs selected, but it also hung in the company of photographs by pivotal pictorialist photographers such as Gertrude Käsebier, Frances B. Johnston, and

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Caffin's work see, Charles Caffin, *Photography as a Fine Art* (New York: Double Day Page & Company, 1901; reprint, New York: Morgan and Morgan, 1971).

[45] William Innes Homer, *Pictorial Photography in Philadelphia. The Pennsylvania Academy's Salons, 1898-1901* (Philadelphia: Pennsylvania Academy of the Fine Arts, 1984), 12. George's committee colleagues included fellow photographers Robert S. Redfield and John Bullock.

[46] Ibid., 12. The 1898 Philadelphia Salon was the first to be based on the European art salon model.

[47] Christian A. Peterson, *After the Photo-Secession: American Pictorial Photography, 1910-1955* (New York and London: W.W. Norton and Co., 1997), 45.

[48] Homer, *Philadelphia Salon*, 12.

[49] Ibid., 12.

[50] The pictorialist practice advocated fine art principles of composition, conceptual interest in beauty and nature, manipulation of photographic media, and inclusion of artistic emotion.

[51] Mary Vaux learned the platinum printing process from William H. Rau, a well-known Philadelphia photographer. For more information about Rau see Mary Panzer, "The Invisible Photographs of William H. Rau," in *Traveling the Pennsylvania Railroad: The Photographs of William H. Rau*, ed.

Edward Steichen.[52] Vaux was no stranger to photography exhibitions, however, as in 1886 she had displayed her Yellowstone-area landscape photographs at a show sponsored by the Philadelphia Photographic Society.[53]

The Vauxes were members of the Philadelphia Photographic Society, and from March 6th to 13th, 1901, they headlined a Society exhibit. Simply titled "Exhibition of Photographs, the Work of Mary M. Vaux, George Vaux Jr., and Wm. S. Vaux Jr.," it was comprised of 148 photographs of the Canadian Selkirk and Rocky Mountain landscape.[54] It included various scenes of the Vauxes' favorite subject matter: the glaciers. Platinum prints of séracs, moraines, and crevasses hung alongside images of Takakkaw Falls and Castor Pollux mountain views, to name just a few. This exhibition caught the interest of Stieglitz, who in the early spring of 1901 invited the family to participate in a Camera Club exhibition in New York. Writing on behalf of Stieglitz, Joseph T. Keiley wrote to George Jr.:

> When Mr. Stieglitz was in Philadelphia last the joint exhibition of Miss. Mary Vaux, Mr. William Vaux and [George Vaux Jr.] was on the wall of the Philadelphia Society and he spoke so well of it on his return…I determined if possible to open our fall season with it if I could persuade you to permit so valuable a collection to get beyond your personal supervision. I now take pleasure in extending to you and through you to Miss. Mary Vaux and to Mr. Wm. Vaux Jr. the invitation of the print committee of the Camera Club.[55]

Alfred Stieglitz wrote to the family on October 17, 1901, regarding their forthcoming salon. He succinctly wrote that "[we] are indulging in great expectations respecting the

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John C. van Horne (Philadelphia: University of Pennsylvania Press, 2002), 27-41. Vaux's photograph is reproduced in Homer, *Philadelphia Salon,* 45.

[52] Stieglitz managed to maintain prominence in the Philadelphia Salon until 1901 when his position was usurped by the "Old School," which refers to the artists and their aims that defined the Salon before Stieglitz took control of it. For more information about the shift in the Philadelphia Salon see William Homer Innes, "The Old Versus New and the 1901 Salon," in *Philadelphia Salon*, 21-26.

[53] Edward Cavell, *Legacy in Ice* (Banff: Altitude Publishing, 1983), 16.

[54] Unpublished information about the Vauxes' 1901 exhibition at the Philadelphia Photographic Society, Whyte Archives, M107/accn. 4012.

approaching salon."[56] Exhibited in a gallery space at Three West Twenty Ninth street in New York, the show was titled "Exhibition of Photographs of Mountain Views and scenery on the Canadian Pacific Railway." One hundred and sixty four landscape photographs were displayed, and like the previous exhibition at Philadelphia, mountain and glacier imagery dominated the show. *Séracs, Illecillewaet Glacier,* which would be later published in the *Engineering Club Journal* in 1907, was first presented at the Camera Club exhibition in 1901. The image's presence in an artistic context complicates the idea that it was simply an explanatory, scientific document. The fact that both Mary and George became associate members of the Photo-Secession in 1902 further puts into question the classification of their photographs as solely scientific documents.[57]

The Photo-Secession was both spearheaded by and under the aegis of Stieglitz. According to *Camera Work,* commonly referred to as the "mouthpiece" of the group, this body of amateur photographers formed an elite assembly that sought to further promote the status of photography as fine art and photographers as artists.[58] Membership gave artists the privilege of engaging in exhibitions and networking with

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[55] Joseph T. Keiley, letter to Geo. Vaux, 14 May 1901, Whyte Archives, M107/accn. 7579.
[56] Alfred Stieglitz, letter to Geo. Vaux, 17 October 1901, Whyte Archives, M107/accn. 7579.
[57] See Cavell, *Legacy in Ice,* 16-18.
[58] To learn more about *Camera Notes* see Christian A. Peterson, *Alfred Stieglitz's Camera Notes* (New York: Minneapolis Institute of Fine Arts and W.W. Norton, 1993), and J.M. Mancini, "'The Safeness of Standing Alone': Alfred Stieglitz, Camera Work, and the Organizational Roots of the American Avante Garde," *Canadian Review of American Studies* 28 (1998): 37-80. *Camera Work* was established in December 1902, the same year that Stieglitz left the amateur photographer publication, *Camera Notes.* It was described as the official "organ" of the Photo-Secession and was replete with articles lauding and extolling the virtues of the group. The term "exclusivity" is a key word that defines the Secession, and articles in *Camera Work* reaffirm this fact. An article by Roland Rood from 1905 explains that artists are different from the "philistine" because they have artistic genes that produce emotional feelings. Roland Rood, "The Origin of the Poetical Feeling in Landscape," *Camera Work* 11 (July 1905): 23-4. For more information about the Photo-Secession see Christian A. Peterson, *After the Photo-Secession: American Pictorial Photography, 1910-55* (New York: Minneapolis Institute of Fine Arts and W.W. Norton and Co., 2002), 9-17.

artists from around the world.[59] There was also a sense of hierarchy amongst the members,[60] which is evident in the two levels of membership: fellows and associates. Both fellows and associates had to be invited to join the Secession by Stieglitz;[61] however, fellows were chosen by a council based on their pictorial photography repertoire and allegiance to fine art photography, while associates were eligible upon demonstrating their "interest in, and sympathy with," the Secession's aims.[62] An editor of *Camera Work* explained that

> it must not be supposed that these qualifications will be assumed as a matter of course, as it has been found necessary to deny the application of many whose lukewarm interest in the cause with which we are so thoroughly identified gave no promise of aiding the secession.[63]

The fact that Mary and George were invited to participate in this exclusive group speaks volumes of their conviction of photography as a fine art. Moreover, Mary Vaux's participation in a show at the *Photo-Secessionist Gallery* reinforces the idea that her photographs carried artistic merit and in turn conveyed personal expression.[64] Reflecting on the *Photo-Secession Gallery* show, a guest marveled over the viewing experience:

> I realized that for the first time in my life I was in the presence of a series of photographs in which the photographic had been eliminated; for the first time I was beholding what the enthusiastic advocates of photography have always claimed for it, namely, a proof positive that photography could be made one of the means of personal expression.[65]

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[59] Mancini, "The Safeness of Standing Alone," 38.

[60] C. Jane Gover, *The Positive Image: Women Photographers in the Turn of the Century America* (Albany: State University of New York Press, 1988). She parallels the Photo-Secession to a family structure, in that Stieglitz was the patriarch.

[61] Mancini, "The Safeness of Standing Alone," 38.

[62] Alfred Stieglitz, "The Photo-Secession List of Member," *Camera Work* 3 (1903-1904): n.p.

[63] Mancini, "The Safeness of Standing Alone," 37-41.

[64] Dorothy Norman, *Alfred Stieglitz: An American Seer* (New York: Random House, 1973), 232. The exhibition ran from 24 November 1905 to 5 January 1906. Her photographs were hung with those of the likes of Gertrude Käsebier, Eva Watson-Schutze, and Alfred Stieglitz to name a few.

[65] Anon., "The Photo-Secession Galleries and the Press," *Camera Work* 14 (April 1906): 37.

As this anonymous art patron demonstrates, the emotional quality which distinguishes pictorialist photographs is inevitable. Conversely, J.M. Mancini argues that Stieglitz validated the pictorialist mandate of photographs as expressing sentiment by "developing institutions devoted to its advancement and through constant negotiation for its acceptance among the already established structures of the art world."[66]

As mentioned earlier, *Séracs, Illecillewaet Glacier* was displayed in both artistic and scientific contexts, and I argue that it elicited different responses based on the audience and viewing framework. For the gallery patron looking at *Séracs, Illecillewaet Glacier* at the Camera Club exhibition, the emotional wonder of nature would have been recognized although this is not to say that the descriptive qualities were overlooked.

Purist Photography

The purist photography practice is characterized by detailed, focussed, and sharp images that are interlaced with personal expression. Like pictorialism, straight photography is a fine art aesthetic that also falls under the rubric of Pictorialism, yet subsequent purist photography groups such as the California photography alliance, *f*.64, sought to disassociate themselves from their pictorialist roots.[67] As Michele Oren writes in "On the 'Impurity' of Group *f.* 64 Photography," the *f.*64s attempted to establish a polemical dichotomy between pictorialist and straight practices, however contemporary scholarship confirms the link between the straight and pictorialist aesthetic.

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[66] Mancini, "The Safeness of Standing Alone," 38.

[67] Central players in this group included Ansel Adams, Edward Weston, Imogen Cunningham, and Sonia Noskowiak, and their first exhibition statement at the M.H. de Young Memorial Museum articulates the group's disassociation from the pictorialist aesthetic. They stated that "photography, as an art form, must develop along the lines defined by the actualities of the limitations of the photographic medium, and must always remain independent of ideological conventions of art and aesthetics that are reminiscent of a period and culture antedating the growth of the medium itself"; quoted in *Seeing Straight: The f.64 Revolution in Photography*, ed. Therese Thau Heyman (California:

Bonnie Yochelson defines purist photography as "simply one aesthetic and technical option made available to the Pictorialist: the printing of an unmanipulated negative on paper."[68] James Borcoman would agree with Yochelson's contention, but adds that there is a form of manipulation taking place within the photographer's mind before the photograph is made. Likewise, Edward Weston explains that: "the finished print must be created in full before the film is exposed."[69] Both Weston and Borcoman are suggesting that subjective knowledge dictates the purist photographer's artistic vision and in turn photographs. While the formal elements of the print remain unmediated, the presence of subjective emotion affects how the photographer perceives and conceives the subject matter. Scholars such as Oren, Yochelson, Borcoman, and Daniel Cornell have identified emotion as the nexus between the straight and pictorialist aesthetics. [70]

James Borcoman states that "*things* have their own poetry and through the vision of photographers…we see such poetry."[71] Anne Hammond would agree with Borcoman's view and adds that the expressive elements in the image are augmented

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The Oakland Museum, 1992), 21. For more information about this group see Michel Oren, "On the 'Impurity' of Group *f.* 64 Photography," *History of Photography* 15 (Summer 1991): 119-126.

[68] Yochelson, "White Reconsidered," 29.

[69] Edward Weston, "Seeing Photographically," in *Encyclopedia of Photography* vol.18. (New York: Greystone Press, 1965); reprinted in *Classic Essays on Photography,* ed. Alan Trachtenberg (New Haven, Conn.: Leete's Island Books, 1980), 169-178.

[70] Daniel Cornell, "Camera Work and the Fluid Discourse of Pictorialism," *History of Photography* 23 (Autumn 1999): 294-300.

[71] Borcoman, "Purism versus Pictorialism,"79.

when photographing the mountain landscape. In "Ansel Adams and the High Mountain Experience," she claims that mountaineer photographers, such as Adams, commonly experienced intense transcendental emotions when climbing mountains and contends that such sentiments are communicated in his straight mountain photographs. To elucidate the phenomena experienced by mountaineers, Hammond paraphrases M.M. Strumia's article in the *American Alpine Journal* of 1929:

> The mountain represented physical challenge and mental purification but that the very shape of a mountain peak had the potential to provoke spiritual stimulation. Although the viewer might receive this sensation at a distance, coming close up to the rock face itself was quite a different matter, one which involved a transformation of the individual through the direct experience of mountain ascent. The confrontation with subconscious fear, and triumph over this fear, resulted in a special feeling of spiritual exhilaration.[72]

Given the "spiritual exhilaration" associated with alpinism, Hammond suggests that mountain photographs have the potential to convey profound human emotions. The Vauxes' images serve as a testament to her claim. The Vauxes were skilled mountain climbers,[73] and the awe that they experienced on the mountains and glaciers is communicated in photographs, such as *Crevasses, Illecillewaet Glacier,* 1905 (Fig. 7). This photograph is a fine example of the purist aesthetic: it is a platinum print in which tonal gradations of the crevasse are articulated; it is a focussed image replete with detail; and most importantly, it is underpinned with a poetic wonder about the glacier. The tall mountain peaks in the background indicate that this scene was photographed from a high vantage point and thus suggest a sense of solitude. The absence of clouds in the sky or human presence in the frame invokes stillness. The transcendental sentiments connoted in this image are further illustrated in William's comment about the crevasses:

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[72] Anne Hammond, "Ansel Adams and the High Mountain Experience," *History of Photography* 23 (Spring 1999): 96. See also Anne Hammond, *Ansel Adams: Divine Performance* (New Haven and London: Yale University Press, 2002). To read more about the emotional undercurrents in Adams' straight photographs see Sandra S. Philips, "Adams and Stieglitz: A Friendship," *Art In America* 93 (January 2005): 63-71.

> The walls of the crevasses where there has not been much melting are often of the most exquisite turquoise blue, which deepens to black in the farthest depths. Frequently icicles are formed which hand row on row with silver-white or blue bands and wreaths. When the sunlight enters one of these chasms, every point and drop reflects the light, while deep pools of water make it seem like an enchanted fairyland. It has been said that only the unfathomable sea rivals this exquisite coloring and setting.[74]

For the Vauxes, the glaciers were sublime: the glaciers' massive size made them seem infinite; their brilliant colors made them look luminous; and, their magical elements of light-filled chasms and wreaths of icicles rendered them as other worldly.[75]

Conclusion

The Vauxes were indeed spellbound with the glacier and Selkirk and Rocky Mountain landscape, and their transcendental perception of nature was encouraged by their Quaker faith. Since nature was the handiwork of God, by experiencing wilderness one was experiencing God. Quakerism nurtured their vision of the landscape as sublime, and the photographs and observations communicate their enchantment with the wilderness. Their fascination with nature fuelled their scientific interest in the glaciers, and the element of inquiry adds yet another dimension to the images. The purist photography aesthetic was propitious for the Vauxes' photography because it enabled them to incorporate both artistic and scientific elements into their

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[73] Cyndi Smith, *Off the Beaten Track: Women Adventurers and Mountaineers in Western Canada* (Canmore Coyote Books, 1989), 34. Mary Vaux was the first woman to ascend Mount Stephen in 1900. Her other climbs included Mount Abbot and Avalanche Mountain.

[74] William Vaux, "Modern Glaciers," 61.

photography practice. As I have demonstrated, the meanings of the photographs are ambiguous in that they function not only as documents that describe views, but also as artistic renderings underpinned with expression. For this reason, the role of the audience and viewing contexts are essential in determining the meaning of the luminous landscape photographs. The spiritual qualities that underpin the images were of interest to tourists and travelers viewing the Vauxes' photographs, for as the following chapter will demonstrate, the Vauxes' C.P.R. brochures were instrumental in generating tourism in the Glacier region. The third chapter will discuss the history of tourism in Glacier National Park, and how the images depict nature as a sublime wilderness despite the presence of a tourist industry in the region.

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[75] Thank you to Dr. PearlAnn Reichwein for her insightful comments about the glaciers.

Chapter Three

The Vauxes' Mountain Pilgrimages: Tourism and Photography in Glacier National Park

> *I really think we are spoiled for travel elsewhere, after the beauty and interest of the Rockies for no where else is there such a wealth of beauty and interest, and I conclude that the haunts so attractive for me…Some how when once this wild spirit enters the blood, golf courses and hotel piazzas, be they ever so brilliant, have no charm, and I can hardly wait to be off again.*[1]

> *…escape from brick walls and city streets is the most desirable thing to do in the world.*[2]

The Vauxes' photographs indulge the viewer in beautiful wilderness scenes. For the Vauxes, nature was a place of spirit, but this is not to say that it was pristine and primordial, for indeed traces of tourism lingered in the landscape. The Vauxes were travelers who depended upon tourism services such as the Canadian Pacific Railway (C.P.R.) to transport them to and accommodate their stay in the mountain parks. Yet, although the family witnessed the presence of the C.P.R. in the Rocky Mountain and Selkirk regions, their photographs rarely included scenes of tourist industry. This is constructed in images such as *Mount Assiniboine from Camp* (Fig. 4). The photograph focuses on the splendor and majesty of the mountains and surrounding area; however excluded from, yet implicit in, the picture frame is the presence of the photographer—the Vauxes—and, in turn, the trappings of technology and tourism that situated them in the Assiniboine area.

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[1] Mary Vaux, letter to Charles D. Walcott, 11 March 1912, Smithsonian Record Unit 7004, Box 5, Folder 2.

[2] Mary Vaux, letter to Charles D. Walcott, 11 April 1912, Smithsonian Record Unit 7004, Box 5, Folder 2.

This chapter examines tourism in the Canadian mountain parks and, in particular, one of the Vauxes' favorite haunts, Glacier National Park. What entices tourists to visit particular landscapes such as Glacier? Recent scholarship states that tourism photographs not only inspire travel in the region but also shape perceptions of place. The sense of sight is important in tourism, and as John Urry contends in "The Consumption of Tourism," the tourist gaze, which includes the romantic gaze, dictates tourism practices. [3] Associated with travel and holiday, the romantic gaze elicits feelings of pleasure and enjoyment from looking at scenes that emphasize "solitude, privacy and a personal, semi-spiritual relationship with the object of the gaze."[4] Like the previous chapter, this one is about the "art of looking," as I will explore how the Vauxes' photographic images of the Rockies and Selkirks conditioned perceptions of nature and enticed travelers to explore the national parks. As well-connected Philadelphians, the Vauxes befriended C.P.R. officials who offered them free railway passes in exchange for work on glacier advertising pamphlets. The Vauxes created several brochures that dated from 1900, 1902, 1903, 1905, 1906, 1911, and 1922.[5] Despite the growing presence of tourism in the mountain parks, the Vauxes produced photographs that depict nature as a sublime wilderness. In this chapter, I argue that while the photographs piqued the viewer's romantic gaze and, by extension, encouraged the idea of nature as a place of spirit, the confirmation of the gaze in the physical landscape and, in turn, definition of nature was incidental to the viewer.

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[3] John Urry, "The Consumption of Tourism," *Sociology* 24 (February 1990): 23-35.

[4] Ibid., 31.

[5] George and Wm. S. Vaux, Jr., "Glacier," 1900, C.P.R. pamphlet, Whyte Archives, M107/accn. 7202; George and Mary Vaux, "The Glaciers of the Canadian Rockies and Selkirks," 1922, C.P.R. pamphlets,

Reading about Tourism

The 2005 website for *Travel Alberta* invites tourists to experience the beauty that the province has to offer in its centennial year. Catering to an array of visitors, viewers can plan a holiday in Alberta that ranges from urban adventures to mountain escapes. Holiday themes include: "Savor the City," "Peace and Tranquility," "Your Adventure Awaits," and "Home Away from Home."[6] The leitmotif that unites each category is tourism as an escape from one's habitual surroundings, or as Siegfried Kracauer explains, tourism as a kind of "spatial transformation."[7] While the practice of tourism has carefree implications as it is intended to yield "pleasure or enjoyment,"[8] scholars such as John Urry have demonstrated the complex nature of tourist activity. In *The Tourist Gaze,* Urry defines tourism as a leisure activity which juxtaposes paid work, and explains that people travel because they seek to experience the extraordinary—that which lies outside the boundaries of normal, everyday existence.[9] Urry states that tourism is "constructed in relationship to its opposite, to non-tourist forms of social experience and consciousness," and for this reason the study of tourism is a "counter-intuitive methodology" because it provides insight into obscure aspects of culture.[10] Yet as Shelagh Squire illustrates in "Rewriting Languages of Geography and Tourism: Cultural Discourses of Destination, Gender, and Tourism History in the Canadian

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Whyte Archives, M107/accn. 2924. See also E.J. Hart, *The Selling of Canada: The C.P.R. and the Beginnings of Canadian Tourism* (Banff: Altitude Publishing Ltd.), 31-40.

[6] Travel Alberta, "Travel Alberta: Made to Order," http://www1.travelalberta.com/madetoorder/home.cfm?segment=3; accessed 6 April 2005.

[7] Siegfried Kracauer, *The Mass Ornament* (Cambridge, Massachusetts: Harvard University Press, 1995); quoted in Chris Rojek and John Urry, "Transformations of Travel and Theory," in *Touring Cultures: Transformations of Travel and Theory,* eds. C. Rojek and J. Urry (London and New York: Routledge, 1997), 6.

[8] R.W. Butler and S.W. Boyd, "Tourism and Parks—a Long but Uneasy Relationship," in *Tourism and National Park. Issues and Implications,* eds. R.W. Butler and S.W. Boyd (New York: John Wiley and Sons, 2002), 6.

[9] John Urry, *The Tourist Gaze,* 2nd ed. (London and New York: Sage Publications, 2002), 2.

Rockies," the study of tourism has primarily focused on spatial questions and economic analysis.[11] Squire explains that while there have been several studies on the history of tourism and on sustainable tourism, scholarship has primarily examined the correlation between tourism, recreation, land use, and development.[12] While Squire values the questions posed by scholars, she contends that tourism "necessitates much more disciplinary, and indeed, interdisciplinary dialogue."[13] The tourism discourse is indeed interdisciplinary,[14] however I will focus on John Urry's pivotal theory of the tourist gaze, and specifically the romantic gaze. Judith Adler's "The Origins of Sightseeing"[15] serves as a prelude to Urry's tourist gaze because she explains the significance of the human senses in tourist ritual and in particular the centrality of sightseeing in modern tourism.

One of Adler's contentions is that "the human body [has been] exercised as an instrument in travel."[16] She demonstrates that the senses are imperative in shaping the

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[10] Ibid., 1-2.

[11] Shelagh J. Squire, "Rewriting Languages of Geography and Tourism. Cultural Discourses of Destinations, Gender, and Tourism History in the Canadian Rockies," in *Destinations: Cultural Landscapes of Tourism*, ed. Greg Ringer (London and New York: Routledge, 1998), 80-100.

[12] For an economic analysis of tourism see Fred Hirsch, *Social Limits to Growth* (London: Routledge and Kegan Paul, 1978.) Hirsch introduces the concept of positional economy and scarcity to tourism. He elaborates that like all "aspects of goods, services, work, positions and other social relationships" tourism is also a positional economy because it is subject to scarcity and congestion. He further explains that the consumption of tourism is dictated by three forms of scarcity that includes social, incidental, and absolute scarcity. Hirsch is quoted in Urry " Consumption of Tourism," 28-30.

[13] Squire, "Rewriting Languages of Geography and Tourism," 80.

[14] For a feminist approach to the study of women travelers and tourists see Squire, "Rewriting Language of Geography and Tourism," and "In the Steps of 'Genteel Ladies': Women Tourists in the Canadian Rockies, 1885-1939," *Canadian Geographic* 39 (1995) 2-16, Betty Spears, "Mary, Mary Quite Contrary, Why do Women Play?" *Canadian Journal of History of Sport* 18 (1987): 67-75, and Janet Wolff, "The Invisible Flâneuse: Women and the Literature of Modernity," *Canadian Journal of Political and Social Theory* 2 (1985) 37-46. For a post-colonial reading of tourism see John Taylor, *A Dream of England: Landscape Photography and the Tourist's Imagination* (Manchester and New York: Manchester University Press, 1994); and, Greg Gillespie, "'I Was Well Pleased with Our Sport among the Buffalo': Big-Game Hunters, Travel Writing, and Cultural Imperialism in the British North American West, 1847-72," *Canadian Historical Review* 83 (December 2002): 555-584.

[15] Judith Adler, "The Origins of Sightseeing," *Annals of Tourism Research* 16 (1989): 7-29.

[16] Ibid., 8.

perception of place and that travel agendas authorize different senses. Adler charts the paradigmatic shift in the kinds of senses and, in turn, body parts exercised in travel from that of the ear and tongue, which weighed equally in importance in the 15th and 16th centuries, to the subsequent focus on the eye in the 17th century and on. Since the discourse of education shaped the Grand Tour agenda, it was believed that the ear and tongue were the most useful "tools" for travel in the 15th century. Young men of high social rank undertook extensive sojourns throughout Europe which included the circuit of France, Italy, Germany, Switzerland, and the Low Countries.[17] On these scholastic journeys men sought to converse with eminent scholars and listen to or read their teachings. Before departing for the tour, men were reminded by their tutors that "Learning…is obtained either by the eare, or by the eie: by hearing (I meane) or by reading," and that engaging in a dialogue with prominent scholars will "make a man much more rhetoricall and civil in speech."[18] Although the scholastic program of travel remained important for a man's educational development, the focus on hearing and speaking lost their prominence to that of sight with the introduction of Natural Philosophy in the 17th century. Natural Philosophy subscribed to the notion that the eye—not the ear or tongue—yielded unmediated information required for the objective knowledge of a subject matter. The detached and objective nature of sightseeing produced report-like recollections of travel. This form of travel shifted in the 18th century, however, with the blossoming of aesthetic interests. Adler explains that "sightseeing became simultaneously a more effusively passionate activity," and that the "experiences of beauty and sublimity, sought through sense of sight, were valued for their spiritual significance."[19] Adler's scholarship is significant because she demonstrates the importance of the human body and specifically the senses in travel ritual as shaping the "perception, appreciation, and denigration"[20] of places. In particular, by charting the evolution of sightseeing in travel, Adler's scholarship explains why sight and all that is associated with it, such as looking at or making visual images, is valorized in travel experiences.

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[17] For more information about the Grand Tour see John Towner, "The Grand Tour: A Key Phase in the History of Tourism," *Annals of Tourism Research* 12 (1985): 297-333.

[18] Lipsius, *A Direction for Travaillers [by Sir J. Spradling] out of J. Lipsius*, (London: C. Burbie, 1592) B3; quoted in Judith Adler, "The Origins of Sightseeing," 10.

It is argued that the general senses of taste, touch, smell, sight, and hearing are heightened while one is on holidays,[21] however as John Urry explains in "The Consumption of Tourism," it is the gaze that augments the tourist experience of place.[22] The gaze is inextricably tied to the practice of tourism for, as Urry contends, "at least part of that experience is to gaze upon or view a set of different scenes, of landscape or townscape which are out of the ordinary. When we 'go-away' we look at the environment with interest and curiosity…In other words, we gaze at what we encounter."[23] Unlike previous scholarship which solely focuses on the economic value of tourism, John Urry's research about the tourist gaze investigates the qualitative value of tourist experiences.[24] In the "Consumption of Tourism," Urry builds upon the economic-tourism theories of Fred Hirsch and Edward Mischan to explain that the practice, or consumption, of tourism is incidental to the tourist gaze, which he defines as the perception of place.[25] The tourist gaze is unlike the everyday form of looking because it revolves around pleasure and enjoyment, and as Peter Osborne explains, it "strengthens the essential demarcation of the time, space and perceptions of the holiday…which gives touristic experience its identity."[26] In specific, Urry introduces two forms of the tourist gaze—the romantic and the collective—and explains that both gazes yield different forms of tourist activity. The collective gaze applies to public places in which human presence is necessitated in order to garner the full tourist experience. As an example, the presence of tourists and travelers in the town of Banff indicates that it is worthwhile for pleasure-seekers to visit and financially indulge in the tourist activities and accommodations that Banff has to offer. By contrast, the romantic gaze requires a peaceful and tranquil setting, such as the mountains or glaciers. To reiterate Urry's comment, this gaze emphasizes a "semi-spiritual relationship with" nature.[27] Because of the spiritual connotations associated with the romantic gaze, wilderness landscapes that embody the sublime concept of nature best accommodate this gaze.

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[19] Adler, "The Origins of Sightseeing," 22.

[20] Chris Rojek and John Urry, "Transformation of Travel and Theory," *in Touring Cultures: Transformations of Travel and Theory,* eds. Chris Rojek and John Urry (New York and London: Routledge, 1997), 5.

[21] Carol Crawshaw and John Urry, "Tourism and the Photographic Eye," in *Touring Cultures: Transformations of Travel and Theory,* eds. Chris Rojek and John Urry (London and New York: Routledge, 1997), 179.

[22] Urry, "Consumption of Tourism," 26.

[23] Urry, *Tourist Gaze,* 1.

Peter Osborne's argument in "Travel Products: Promoting the Tourist Vision,"[28] is imperative to this chapter because he explores the concept of the tourist gaze under the aegis of photography. The theoretical crux is that photographs not only inform

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[24] John Urry and Chris Rojek, "Transformations of Travel and Theory," 2.

[25] Urry, "Consumption of Tourism," 26. The topic of the gaze is multifaceted, as scholars have investigated its role as a power device. It is not my intention to explore the gendered gaze because my focus is on the alignment of the gaze with consumption. For more information about the gendered gaze and tourism see Squire, "Rewriting Languages of Geography and Tourism," 80-100, and John Taylor, *A Dream of England: Landscape, Photography and the Tourists Imagination* (New York: Manchester University, 1994.)

[26] Peter D. Osborne, *Travelling Light: Photography, Travel and Visual Culture* (Manchester and New York: Manchester University Press, 2000), 82-3.

[27] Urry, "Consumption of Tourism," 31.

[28] Osborne, *Traveling Light*, 79-91.

perception of place, but also condition the tourist's experience. He demonstrates that through the valorization of sight and the ubiquity of photography, images have evolved to dictate tourist experiences such that tourism is not a form of discovery but rather a kind of confirmation. Thus, when a tourist is sightseeing he or she is "not so much looking as looking at images, or *for* images"[29] that he or she is already familiar with. In this densely written article, Osborne explores the complex and oscillating relationships between visual images, tourists, and the tourist experience, and elements of Joan Schwartz's imaginative geographies[30] are implicated in his discussion. While Schwartz argues that cultural ideas and constructs inform photographs which, in turn, become pretexts that inform notions about place, Osborne explains that photographs are quotations of other travel effigies, such as brochures, and are presented to tourists as an organized and systematized package in which tourists can read signs of place. Photographs, therefore, can also be imaginative geographies and function as pretexts that shape and create ideas about place even before the tourist has visited the desired location.

As previously mentioned, tourism yields pleasure or enjoyment, and indeed tourist photographs "seek…to please the eye."[31] The pleasure evoked from looking at and creating photographs defines the tourist gaze. According to Osborne not only is the tourist gaze a product of images, but so is the sacralized sight/site. Osborne recollects MacCannell's five stages of sacralization and argues that photography is an integral element in the construction of the sight.[32] He states that "the sight is tourism's essential object and location, and not only is the essential mode of consuming it visual, it is itself the result, the invention, of predominantly visual representations."[33] Tourists therefore photograph a site as a means to confirm their experience and validate their connection with it. Referring to Dean MacCannell's tourist-pilgrim analogy, Osborne explains that like religious pilgrims who sought to make a spiritual connection with the sacred, tourists seek to make a connection with and sense of the places that they have visited. Using Obsorne and Urry's arguments as a theoretical guide to this chapter, I will explore the relationship between the Vauxes' photographs and tourism in the national parks.

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[29] Ibid., 82.

[30] Joan Schwartz, "*The Geography Lesson:* Photographs and the Construction of Imaginative Geographies," *Journal of Historical Geography* 22 (January 1996): 16-45.

[31] Osborne, *Travelling Light,* 90.

Developing Canada's First National Parks

In the summer of 1886, Sir John A. Macdonald toured all of western Canada, concluding his trip in Victoria, compliments of the newly established Canadian Pacific Railway. He extolled the beauty of the mountain wilderness to a Winnipeg audience:

> There may be a monotony of mountains as there is of prairies, but in our mountain scenery there is no monotony. You go up from Calgary and climb the summit of the first range of the Rocky Mountains, and you see one description of grandeur. You plunge into the valleys, and rise up another range and you have quite a different character, equally sublime. You plunge into another valley, and there come the Selkirks, of unsurpassed beauty and

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[32] Dean MacCannell, "Sight Seeing and Social Structure," *The Tourist: A New Theory in Leisure Class* (New York: Schocken Books, 1976), 39-51. MacCannell explains that tourism is based on the concept of visiting "sights," which he defines as places or cultural objects that are apotheosized by culture. While there are two "institutional mechanisms" that dictate the construction of sight, I will focus on the mechanism of sight sacralization. MacCannell charts the five stages necessary for the beatification of a sight. The first stage occurs when a sight is recognized as valuable for preservation or recognition; the second stage is called the "framing or elevation" stage in which the object is framed or put on a pedestal for observation. "Enshrinement" is the third stage that occurs when "the framing material that is used has itself entered the first stage of sacralization." Stage four is entered when the object is reproduced mechanically, such as photographically, and the final stage takes place when the society or culture that it belongs to values itself based on the sight.

[33] Osborne, *Travelling Light*, 84.

> grandeur, of magnificent and almost eccentric changes. You plunge into the valley of the Fraser and the magnificent canyons. The mountains are rich in gold, and silver and all descriptions of minerals, and clothed with some of the finest timber, and inexhaustible means of supplying the treeless expanse of prairies in the Northwest.[34]

Macdonald's statement is important for two reasons. First of all, his perception of nature is characteristic of the North American attitude about wilderness during the 19th century. Like his peers, Macdonald subscribed to the notion that nature was both an "Infinite Storehouse" with unlimited resources and a "Temple" of beauty.[35] Secondly, Macdonald's statement alludes to the economically-driven agenda that founded Canada's national parks policy.[36] The development of the national parks was premised on Macdonald's national program to create a railway line that politically and economically connected the east with the west.[37] Until the mid-19th century, the Hudson's Bay Company controlled the Northwest region, a landscape that they depicted as barren and infertile;[38] however, the Palliser survey (1857-59) and Dawson-Hind expedition (1857-58) confirmed that the prairies were suitable for settlement and agricultural development and, importantly, illustrated that the mountains served as a potential corridor for trade.[39] The newly acquired knowledge of the prairies partnered with a growing nationalist fervor associated with Confederation prepared the way for a railway.[40] In 1872, Sanford Fleming embarked with his crew on an exploration of a suitable route for the railway. Echoing Macdonald's resource-extraction mandate, the survey reported that the regions were "rich in minerals, beyond conception, rich in gold, silver, copper, iron, tin, phosphates of lime…," and concluded that "for the development of all this wealth, only the construction of a Railway is necessary."[41]

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[34] Sir John A. Macdonald, *The Daily Manitoban*, August 26, 1886, in Public Archives of Canada, Macdonald Papers, vol. 113, #46040; quoted in Robert Craig Brown, "The Doctrine of Usefulness: Natural Resource and National Park Policy in Canada, 1887-1914," in *The Canadian National Parks: Today and Tomorrow*, eds. J.G. Nelson and R.C. Scace (Calgary: University of Calgary, 1969), 48.

[35] George Altmeyer, "Three Ideas about Nature in Canada: 1893-1914," *Journal of Canadian Studies* 12 (August 1976): 21-36. The third perception of nature was that it was a Benevolent Mother.

[36] R.C. Brown, "The Doctrine of Usefulness,"46, 58.

[37] Great Plains Research Consultants, *Banff National Park, 1792-1965: A History,* microfiche report series no. 196, Parks Canada, 1984, 40. See also Michael J. Broadway, "Urban Tourist Development in the Nineteenth Century Canadian City," *The American Review of Canadian Studies* 26 (1996): 83-99.

[38] Great Plains Research, *Banff National Park*, 28-30. Until the mid-19th century the Hudson's Bay Company maintained its stake in the Northwest. However, the company lost its land when the British Government denied the renewal of their trade contract. Shortly after the government reclaimed the land, the Royal British Geological society hired John Palliser to survey the Northwest region.

[39] Ibid., 29, 37-8.

It was during the construction of the railway in the Sulphur Mountain vicinity that mineral hot springs were rediscovered by railway workers.[42] There followed a bitter and long-winded battle between several men and government officials about the ownership of the springs.[43] Motivated by the success of the Arkansas Hot Spring Reserve in the United States,[44] the Canadian government reserved 26 square kilometers around the Banff hot springs, establishing it as public property. This was not the first time that Canada looked toward United States park legislation for inspiration. The Rocky Mountains Park Act (which applied to the region now known as Banff) was passed in 1887 and the legislation echoes the Yellowstone National Park Act of 1872. Like Yellowstone, which was reserved as a "public park or pleasure playground,"[45] the Rocky Mountain Act stated that the "[national park] is hereby reserved and set apart as a public park and pleasure playground for the benefit, advantage and enjoyment of the people of Canada."[46] While Americans maintained a preservation ethic for their parks, the Canadian government made use of the natural resources as a means to stabilize the national economy.[47] Macdonald's doctrine of usefulness promoted the timber cutting, mineral development and grazing that occurred in Banff.[48] Alongside the removal of natural resources, tourism was viewed as another way to generate revenue in the parks. Cornelius van Horne, the general manager of the C.P.R, recognized the tourism potential of the Glacier and Yoho areas. In a letter to C.P.R. officials, van Horne countered Macdonald's agenda by acknowledging that removing natural resources such as timber could "much injure" the "fine scenery" and in turn tourism.[49] With support of Members of Parliament, Yoho and Glacier national parks were established in 1888.[50]

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[40] Ibid., 38.

[41] Ibid., 40-1.

[42] Ibid., 44-5. The railway workers were not the first to discover the sulphur hot springs. The springs were known to Aboriginals of the region and documented by the Palliser survey in 1859.

[43] Ibid., 44-53. See also Kevin McNamee, "From Wild Places to Endangered Spaces. A History of Canada's National Parks," in *Parks and Protected Areas in Canada: Planning and Management*, eds. Philip Dearden and Rick Rollins (Toronto: Oxford University Press, 1993), 17-44.

[44] Kevin McNamee, "Wild Places," 20. A similar instance occurred in the United States, so Congress created a reserve around the springs in 1832.

[45] B.W. Boyd and R.W. Butler, "Tourism and National Parks: The Original Concept," 15.

By 1911, the national parks network was flourishing with new parks developing across Canada.[51] The pressing need for the establishment of a national parks branch of government was met with the implementation of the Dominion Forest Reserves and Parks Act in 1911. The act was unprecedented in Canadian park history, as it not only controlled the level of development in the parks—thus attempting to break free from the earlier resource extraction objective—but also placed the parks under the auspices of the world's first Dominion Parks Branch, now known as Parks Canada.[52] James B. Harkin was appointed by the Honorable Frank Oliver, Minister of the Interior, as Canada's first commissioner of the Dominion Parks Branch in 1911, and his vision of nature shaped modern tourism in the parks.[53]

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[46] "Rocky Mountain Park Act, 1887, statutes of Canada, 50-51 Victoria Chapter 32. Assented to 23 June 1887," in *Documenting Canada. A History of Modern Canada in Documents*, eds. Dave de Brou and Bill Waiser (Saskatoon, Saskatchewan: Fifth House Publishers, 1997). In June 1887, the boundaries of the park were extended to encompass 673 square kilometers.

[47] See Philip Dearden, "Tourism, National Parks and Resource Conflicts" in *Tourism and National Parks: Issues and Implications,* eds. Richard W. Butler and Stephen W. Boyd (New York: John Wiley and Sons Ltd., 2000), 187-201. Dearden explains that the wording in the legislation was problematic and led to the resource extraction that occurred in the parks. He explains that the Canadian National Parks Act (1930), which built on the earlier 1887 Act, was amended in 1989 so that park policy focused on the preservation of nature rather than exploitation of it.

[48] McNamee, "Wild Places," 20.

[49] John Marsh, "The Evolution of Recreation in Glacier National Park, British Columbia, 1880 to present," in *Recreation Land Use. Perspectives on its Evolution in Canada,* eds. Geoffrey Wall and John S. Marsh (Ottawa: Carleton University Press, 1982), 65.

[50] McNamee, "Wild Places," 21.

[51] Boyd and Butler, "Tourism and National Parks: The Original Concept," 21. In addition to Banff, Glacier, and Yoho, other national parks in the west included Wateron Lakes, Elk Island and Jasper national parks. Central Canada saw the development of major parks in the Ontario and Quebec regions: Algonquin Park (1893) and Laurentide Park (1895). See McNamee, "Wild Places," 22.

Tourism in the Parks

J.B. Harkin had a difficult role to fulfill as Canada's first parks commissioner because he had to sustain the national parks based on the conflicting aims of park legislation. How can a national park be both a pleasure playground and a preservation oasis? Harkin was aware of this paradox, and as Kevin McNamee states, he left an "indelible mark" on Canadian park history because he demonstrated the intrinsic value of nature and promoted its economic potential.[54] Harkin was inspired by the writings of poet and Sierra Club founder, John Muir.[55] Like Muir, he supported a romantic perception of nature and promoted it as essential for spiritual development:

> National Parks are maintained for all the people—for the ill, that they may be restored, for the well that they may be fortified and inspired by the sunshine, the fresh air, the beauty, and all the other healing, enobling [sic], and inspiring agencies of nature. They exist in order that every citizen of Canada may satisfy his craving for Nature and Nature's beauty; that he may absorb

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[52] McNamee, "Wild Places," 23.

[53] J. B. Harkin, *The History and Meaning of the National Parks of Canada. Extracts from the late Jas. B. Harkin, first commissioner of the National Parks of Canada* (Saskatoon, Sask.: H.R. Larson Publishing Co, 1958), 5.

[54] Ibid., 24.

[55] For more about John Muir see Paul D. Sheats, "John Muir's Glacial Gospel," *The Pacific Historian* 29 (1985): 42-53.

> the poise and restfulness of the forests; that he may steep his soul in the brilliance of the wild flowers and the sublimity of the mountain peaks…[56]

According to Harkin, all Canadians had the right to experience the parks and the glorious effect that nature had on the human spirit. His democratic philosophy about the nature experience served as the impetus for his promotion of tourism in the parks. Conversely, Harkin was aware that tourism in the parks had great financial potential. As previously mentioned, an overarching goal in national park legislation was financial profit, and like the Macdonald government, Harkin sought to achieve economic prosperity. Harkin's tourism agenda included the introduction of roads through the parks, such as the Banff-Jasper highway, the improvement of accommodations, and provision of trails and minor attractions such as golf courses.[57] His department was also responsible for the publication of tourist guidebooks and brochures. Mabel Williams, who was Harkin's secretary, wrote a series of books that glorified not only the majestic scenery but also the technological achievements in the park.[58] As a means to further propagate his tourism vision, Harkin worked in partnership with the C.P.R. and the Alpine Club of Canada (A.C.C.).

Dueling Interests: The C.P.R. and A.C.C. in the Parks

The C.P.R. was a financial asset for the parks, as reports estimated that "the amount of money attracted to Canada annually by the fame of the Rockies [was] about

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[56] Harkin, *The History and Meaning of the National Parks of Canada. Extracts from the late Jas. B. Harkin, first commissioner of the National Parks of Canada*, 16.
[57] McNamee, "Wild Places," 24.
[58] To read M.B. Williams travel guides see *Through the Heart of the Rockies and Selkirks* (Ottawa: F.A. Acland, 1924); *The Kicking Horse Trail: Scenic Highway From Lake Louise, Alberta to Golden, British Columbia* (Ottawa: Department of the Interior, 1927); *Kootenay National Park and the Banff*

50,000,000 dollars."[59] The success of the line was due partly to the advertising campaigns that were engineered by William Cornelius van Horne. Scenery was the hallmark of the campaign,[60] and the landscape paintings and photographs used for advertisements drew upon conventions of earlier works by landscape artists such as Lucius O'Brien and John Fraser, as well as the transcendentalism-inspired Hudson River School.[61] By depicting nature as a sublime landscape, the posters, postcards and illustrated brochures aligned with the tradition of landscape painting. While the pictures lauded the wilderness, the written text extolled the luxurious amenities and scenery.[62] For example, a pamphlet for Glacier House described the Illecillewaet glacier as "a vast plateau of gleaming ice extending as far as the eye can reach, as large, it is said, as all those of Switzerland combined."[63]

The C.P.R. sought to attract not only North American travelers, but European clientele as well. Promotional material such as paintings and photographs were regularly displayed at London expositions including the 1886 Colonial and Indian Exhibition and Queen Victoria's Golden Jubilee in 1887.[64] Moreover, travel guides, brochures, and magazines were distributed worldwide and thus enjoyed by a broader audience.[65] The promotional material was produced by painters and photographers

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Windermere Highway (Ottawa: F.A. Acland, 1929). See also I.S. MacLaren, "The Cultured Wilderness of Jasper National Park," *Journal of Canadian Studies* 34 (Fall 1999): 7-51.

[59] J. B. Harkin, *The History and Meaning of the National Parks of Canada*, 8.

[60] Hart, *Selling of Canada*, 22.

[61] For more information about Lucius O'Brien's landscape painting see Ellen L. Ramsay, "Picturing the Picturesque: Lucius O'Brien's *Sunrise on the Saguenay*," *RACAR* 17 (1990): 150-57. For more information about the Hudson River School see Barbara Novak, *Nature and Culture: American Landscape and Painting. 1825-1875* (New York Oxford University Press, 1980).

[62] Hart, *Selling of Canada*, 24-7.

[63] C.P.R. advertisement quoted in Hart, *Selling of Canada*, 24.

[64] Ibid., 37.

[65] Margery Tanner Hadley, "Photography, Tourism and the C.P.R.," in *Essays on the Historical Geography of the Canadian West: Regional Perspectives on the Settlement Process*, eds. L.A. Rosenvall and S.M. Evans (Calgary: The Department of Geography, U of Calgary, 1987), 62-3.

under the auspices of what E.J. Hart describes as the "railway art school."[66] Artists were commissioned by the C.P.R. to paint and photograph the scenery along the railway line; they received free railway passes, and their work was used for C.P.R. advertising purposes. Van Horne, who oversaw the school, ensured the art was of high caliber; he commissioned artists such as John Fraser, William McFarlane Notman, and the Vaux family. While the C.P.R. was instrumental in generating interest in the national parks, the Alpine Club of Canada (A.C.C.) also played a role in attracting tourists to the region.

The central presence of the C.P.R. in the parks has overshadowed recognition of the A.C.C.'s tourism development efforts. Established in 1906 by Elizabeth Parker and Arthur Wheeler, the A.C.C. sought to nurture the alpinist community in Canada and promote Canada's "mountain heritage."[67] The Vauxes were some of the earliest members, and they both shared an interest in and advocated the club's agenda. While the aims of the group ranged from cultivation of landscape art to promotion of scientific discovery and exploration, traces of park legislation are echoed in the A.C.C.'s lexicon. Like parks policy, the club sought to maintain "the preservation of the natural beauties of the mountain places and of the fauna and flora in their habitat" and to encourage "new regions as a national playground."[68] Indeed, the A.C.C. sparked interest in the mountain "playground," especially since European alpinists were seeking new mountain ranges to climb. In her article, "At the Foot of the

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[66] For more information about the "railway art school" see Hart, *Selling of Canada,* 31-40.

[67] PearlAnn Reichwein, "At the Foot of the Mountain: Preliminary Thoughts on the Alpine Club of Canada, 1906-1950," in *Changing Parks: The History, Future and Cultural Context of Parks and Heritage Landscapes,* eds. John S. Marsh and Bruce W. Hodgins (Toronto: Natural Heritage/Natural History Inc., 1998), 160-176. See also Elizabeth Parker, "The Alpine Club of Canada," *Canadian Alpine Journal* 1 (1907): 3-8.

[68] Reichwein, "At the Foot," 161.

Mountain: Preliminary Thoughts on the Alpine Club of Canada, 1906-1950," PearlAnn Reichwein explains that alpinism is an expansionary form of scientific and imperial conquest,[69] and since mountaineering was at its zenith in Europe,[70] the Canadian mountains were of interest to the international mountaineering community. For this reason, J.B. Harkin stated that "it is the policy of the department to co-operate in every way possible with the A.C.C."[71]

The link between the C.P.R. and the A.C.C. is not only that both inspired tourism in the region, but also that the Vauxes had an affiliation with both organizations.[72] By maintaining an involved relationship with groups associated with the parks, the family confirmed their place within the alpine fellowship; a community of people who encouraged social responsibility within the mountain parks.[73]

"Guardians of the Rockies"[74]

The Vauxes were privileged to be among the first generation of leisure travelers to experience the mountain parks of Canada. They first visited Glacier National Park in 1887, when both the park and its amenities were in their infancy—

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[69] Ibid., 163. For a discussion about alpinism at Glacier House see Marsh, "Glacier National Park," 68, and William Putnam, *The Great Glacier and Its House: The Story of the First Center of Alpinism in North America, 1885-1925* (New York: The American Alpine Club, 1982), 65-78.

[70] See Bruce Hevly, "The Heroic Science of Glacier Motion," *Osiris* 2 (1996): 66-86.

[71] National Archives of Canada, RG 84, vol. 1, file R62, part 2 Harkin to Rocky Mountains Park Superintendent, 25 May 1916; quoted in Reichwein, "At the Foot," 165.

[72] Smith, *Off the Beaten Track*, 34. Mary Vaux acquired membership in 1914 with her graduation climb of Mt. Stephen. The Vauxes were also members of the American Alpine club (A.A.C.) which has a similar mandate as the A.C.C. William Vaux served as the A.A.C. treasurer from 1902-1910, during which time John Muir acted as a councilor (1902-5) and then as president (1908-1910). George Vaux served as the A.A.C. treasurer from 1908-10. See American Alpine Club, "Past Officials," http://alpineclub.advantrics.com/about/pastofficials.asp; accessed 10 March 2005.

[73] Thank you to Dr. Reichwein for discussing with me how artists such as Emily Carr and Mary Vaux felt a social commitment to nature. See Gerta Moray, "Wilderness, Modernity and Aboriginality in the Paintings of Emily Carr," *Journal of Canadian Studies* 33 (Summer 1998): 43-66. The theme of

Glacier National Park was developed in 1886 while Glacier House was established in the fall of 1887.[75] One can only imagine what it was like to be a traveler in the Victorian era. Unlike contemporary times when the parks are available to all tourists and travelers, the parks at the turn of the last century—while replete with railway laborers and service workers—were accessible only to the elite.[76] A small group of people comprised a mountain community of travelers, and, as John Taylor explains in *A Dream of England,* there is a distinction between a traveler and a tourist. He states that "travelers are the most serious and dedicated explorers. They expend more time, money and attention to their practice than tourists, who set out to confirm what they already know."[77] Butler and Boyd report that tourists often depend on commercial accommodations and are less likely to return, while John Urry further adds that tourists tend to stay for shorter periods of time than the traveler.[78] In *The Tourist Gaze,* Urry differentiates between the tourist and traveler within the context of the gaze.[79] He explains that travel is a solitary, or "individual," experience in that the traveler's gaze cannot be repeated by others, while tourism is a group, or "mass," activity in which the tourist gaze can be shared by many people.[80] Urry's discussion of the

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responsibility permeates this article, as Moray counters scholarship that casts Carr within a "racist paradigm," and suggests that Carr both admired and sympathized with Aboriginals.

[74] PearlAnn Reichwein, "Guardians of the Rockies," 4-13.

[75] Marsh, "The Evolution of Recreation in Glacier National Park," 62-66, and Putnam, *The Great Glacier and Its House*, 37.

[76] Putnam, *The Great Glacier and Its House,* 15-34.

[77] John Taylor, *A Dream of England,* 7. Taylor explains that there is hierarchy in travel which is demonstrated by three groups. These include the traveler, the tourist, as well as the tripper, which he defines as people who travel with the least amount of money and time to spare, and whose trips are the most superficial of the three groups. Taylor demonstrates the complexity of travel and explains that there are further divisions within each group, as the "profile," such as age, gender, race and social class, and also the historical conditions, localities, and intention of travel (amongst other reasons) can alter the characteristic of each group.

[78] R.W. Butler and S.W. Boyd, "Tourism and the Parks," 6, and Urry, *The Tourist Gaze*, 1 [illegible]

[79] Urry, *Tourist Gaze,* 1-15.

[80] Ibid., 3.

"mass character" of the tourist gaze complicates the claim that the Vauxes were solely travelers, as they too experienced the romantic gaze.

The annual sojourns, lengthy periods of stay, and involvement in the mountain community suggest that the Vauxes were travelers. They participated in various alpine groups in Canada;[81] for example, William and George joined the A.C.C. in 1906 while Mary was admitted in 1914 after her climb of Mt. Stephen.[82] Mary was also a member of the Trail Riders of the Canadian Rockies; she acquired the sobriquet "Grand Dame" because of her lengthy horseback trips, which she calculated as spanning over 8,000 km.[83]

Besides engaging with organized groups, the Vauxes reveled in recreational activities offered by the hotel. Glacier House was the Vauxes' favorite holiday spot as they unofficially made it their summer headquarters. The phenomenal scenery at Glacier House—in specific the Illecillewaet glacier which was only a short distance away by foot—attracted all sorts of travelers and tourists.[84] According to estimations of overnight guests at Glacier House, the number of visitors swelled from 708 in 1887, to 4,925 in 1906, to 10, 608 in 1915.[85] Van Horne capitalized on the popularity of the glacier resort and added provisions to generate interest in the region. In 1898, Swiss guides Edward Feuz and Christian Häsler were hired to assist aspiring alpinists.[86] In response, George Vaux delightedly wrote that:

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[81] Smith, *Off the Beaten Track*, 34.
[82] Ibid., 34.
[83] Ibid., 47.
[84] Putnam, *The Great Glacier and Its House*, 60.
[85] Marsh, "Glacier National Park," 66.
[86] Putnam, *The Great Glacier and Its House*, 65-78, and Hart, *Selling of Canada*, 55-68.

> the most notable improvement has been the bringing here of the two Swiss guides. Thoroughly safe, and competent in every particular, there is afforded to the general visitor the opportunity to get a true insight into the attraction which mountaineering affords.[87]

In 1905, the Nakimu caves, located seven miles west of Glacier House, were opened for the curious and adventurous lot.[88] William and Mary Vaux along with their friend and fellow Quaker explorer, Mary Schäffer, toured the caves with Charles Deutschman. Schäffer recounted the trip in an article for *The Calgary Herald*,[89] while William recorded the day's events in the Glacier House Scrapbook. In the lengthy entry, William discusses the "lovely scenery" in the cave region and the descent into the lower levels of the cave. He concludes by stating:

> the trip to the Caves is well worth the exertion, the trail is excellent and safe and the views superb. To anyone who is able to descend a ladder the visit to the Caves is perfectly safe, and under the guidance of Mr. Deutschman will be of great interest and lasting memory.[90]

Despite their popularity, the caves were closed to the public in 1929.[91] The closure of the caves was due to the physical demise of Glacier House in the same year. There are several factors which led to the termination of the resort. For example, Edward Cavell explains that after 1910 Glacier was no longer the center of alpinism and the sense of discovery was lost, while William Putnam explains in *The Great Glacier and Its House*, that it was the capricious avalanches in the vicinity that "spelled the end of

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[87] George Vaux Jr., 20 August 1899, in "Glacier House Scrapbook," reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps* (Banff: Altitude Publishing, 1983), 70.

[88] Marsh, "Glacier National Park," 66. Horse trails, tote roads for carriages, and a teahouse were also provided. The caves were initially named after Charles Deutschman, a trapper who found and subsequently staked mineral claims to the land. He sold the caves to the Dominion Government and in 1905 was hired as a tour guide and caretaker of the caves. Deutschman resigned from his position in 1918. See Cavell, *Legacy in Ice*, 90.

[89] Schäffer's passage is quoted in *A Hunter of Peace: Mary T.S. Schäffer's Old Indian Trails of the Canadian Rockies*, ed. E.J. Hart (Banff, Alberta: Whyte Museum of the Canadian Rockies, 1980), 8-9.

[90] William S. Vaux, 22 July 1906, in "Glacier House Scrapbook," reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps* (Banff: Altitude Publishing, 1983), 90.

[91] Cavell, "Glacier House Scrapbook," 57.

Glacier House."[92] Fearing the safety of C.P.R. guests and employees, the railway was redirected through the Connaught Tunnel, which meant that Glacier House was omitted from the railway line's route.[93] The closure of both the caves and Glacier House is symbolic of an era that had passed.

Like tourists, early travelers were consumers who purchased railway tickets, accommodations, or provisions associated with travel.[94] Yet unlike tourists, the early generation of travelers were also producers of tourism.[95] From 1900 to 1922, the Vauxes created a series of advertising pamphlets for the C.P.R. The brochures included illustrations such as *Séracs, Illecillewaet Glacier* (Fig. 5.), which was published in the 1922 brochure, and *The Great Illecillewaet Glacier, from Avalanche Crest* (Fig. 9) that was published in the 1900 pamphlet.[96] Given the family's credentials as authorities on fine art photography and glaciology, the railway company was more than willing to enter into a partnership with the Vauxes. The pamphlets were made in exchange for free railway passes, a common trade made by van Horne as a means to accumulate potential advertisements for the railway line. The Vauxes likely secured the C.P.R. deal after 1897, the year that they met and befriended Edward J. Duschesney, the assistant-general superintendent of the C.P.R.[97]

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[92] Ibid., 57. Putnam, *The Great Glacier and Its House,* 21.
[93] Ibid., 15-34. Early surveys reported that the Glacier area was prone to avalanches, and so before the C.P.R. could operate in the vicinity, Van Horne ordered the construction of snowsheds along the railway line. Avalanches continued to cause problems for the C.P.R., however it was the fatal snowslide in the early spring time of 1910 that motivated the C.P.R. to create an alternative route for the railway.
[94] For more information about the contemporary consumption of nature see Jennifer Price, "Looking for Nature at the Mall: A Field Guide to the Nature Company," in *Uncommon Ground: Rethinking the Human Place in Nature,* ed. Wm. Cronon (New York: W.W. Norton, 1996), 186-203.
[95] Squire, "Rewriting Language of Geography and Tourism," 82, 88. Squire writes that Mary Vaux was a consumer and producer of the Glacier House destination.
[96] This image was published under a different title, *Dome, Castor and Pollux, Asulkan Glacier, Glacier Crest, and Illecillewaet Glacier from trail to Mount Avalanche*, in Cavell's *Legacy in Ice.*

The brochures included an introduction to glaciology, which comprised terminology related to glacial features, maps of the regions, as well as an overview of the family's glacial recession studies, and a series of photographs illustrating the majesty of the glaciers and mountains. The final brochure was produced in 1922 and is a synthesis of the family's past pamphlets and research. Unlike the earlier pamphlets, however, the 1922 brochure was framed within the C.P.R. lexicon of travel advertising.[98] Not only did the Vauxes locate the scenery in relation to the railway line, but they also articulated the national park destination as one that was different from and far finer than the European landscape.[99] For example, Mary and George Vaux Jr. wrote:

> Formerly it was thought that if one would enjoy really fine mountains one must go to Switzerland, the Mecca of all mountain climbers, but now the Alps have come to be the yardstick by which we measure the Rockies of our western world. Apart from their grandeur and beauty as masses of bare rock and verdure, the Rockies have superb and everlasting snow fields and mighty glaciers, making a combination of color and light effect which is seen only in regions of lofty mountains. The magnificent scenery of the Canadian Rockies and Selkirks, which are now easily reached by the Canadian Pacific Railway, is becoming better known each year to tourists. Those best qualified to judge are unanimous in the opinion that, all things considered, this new Alpine region is greater and more beautiful than that of the Old World.[100]

While the passage speaks of a sublime landscape, photographs such as *Mount Assiniboine from Camp* (Fig. 4) and *Falling Avalanche from Mount Victoria, Lake*

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[97] Cavell, *Legacy in Ice*, 7.
[98] Hadley, "Photography, Tourism and the C.P.R.," 48-69.
[99] See Squire, "Rewriting Language of Geography and Tourism," 82-3. Squire explains that a destination is a "social and cultural construction where meanings and values are negotiated and refined by diverse people, and mediated factors often related only tangentially to a particular tourist setting."

Louise (Fig. 8) visually construct this same concept. The fact that both the images and the text communicate a romantic perception of nature demonstrates that the Vauxes experienced the romantic gaze. By experiencing the romantic gaze, the Vauxes confirmed their oscillating roles as not only travelers but also tourists who were part of a larger tourism framework. Like the groups of people travelling on the C.P.R., the Vaux family also sought to experience the beauty of the mountains and glaciers. The Vauxes shared with other tourists the experience—or gaze—of nature, however because "there is no single tourist gaze,"[101] personal idiosyncrasies underpin each tourist's gaze. For the Vauxes, the romantic perception of nature defined the wilderness as a place of spirit and wonder, and this conception persisted despite the human settlement and tourism in the mountain areas.

Although the Vauxes belonged to the first generation of railway travelers to enter the mountain park areas, they were not the first people to explore and experience the region. Archeological evidence demonstrates that the Banff and Glacier areas were thoroughly explored, populated, and used by humans prior to the mid-18th century. While Aboriginals in the mountain regions had been known to explorers, surveyors, and Hudson Bay Company traders since the 18th century, what was not known was the full length of time that humans had been there. Beginning in the 1950s, archeological research revealed that Aboriginal mountain peoples inhabited the eastern and southern mountain slopes over 10,000 years ago.[102] Tribes were nomadic, and as Ole Christenson explains in *Banff Prehistory: Prehistoric Subsistence and Settlement in*

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[100] Mary and George Vaux Jr., "The Glaciers of the Canadian Rockies and Selkirks," 1922, page 3, C.P.R. Pamphlets, Whyte Archives, M107/accn. 2924.
[101] Urry, *Tourist Gaze,* 1.
[102] Great Plains Research Consultants, *Banff National Park,* 3.

Banff National Park, prehistoric settlement patterns were "closely tied to the seasonal and spatial distribution of resources within each valley."[103] The Hudson's Bay Company entered the Banff-Glacier areas in the 18th century, and documentation from that time period explains that the Kootenays, Blackfoot, Peigans, and Bloods lived in the mountain vicinity.[104] By 1887 parks legislation ordered the "removal and exclusion of all trespassers,"[105] which meant that Aboriginals were evacuated from their land and pushed to the periphery of park boundaries.[106]

Despite the historical documentation of human presence in the mountain areas, the Vauxes' Quaker faith inspired their transcendental vision of the natural environment, and as I have demonstrated, this perception remained steadfast. Elements of Quaker principles are also implicit in the family's social commitment to the mountain parks. Like other members of the alpine community, such as those involved with the A.C.C., the Vauxes sought to educate the public about Canada's mountain heritage, and specially, the glaciers. This was achieved by publishing their glacier studies and landscape photographs in C.P.R.-sponsored brochures. The pamphlets broadly disseminated information about the mountain parks while augmenting tourist interest in them.

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[103] Ole Christenson, *Banff Prehistory: Prehistoric Subsistence and Settlement in Banff National Park* (Ottawa, 1971), 147; quoted in Great Plains Research Consultants, *Banff National Park*, 3.
[104] Ibid., 5-7.
[105] "Rocky Mountain Parks Act, 1887," in *Documenting Canada. A History of Modern Canada in Documents*, eds. Dave De Brou and Bill Waiser (Saskatoon, Saskatchewan: Fifth House Publishers, 1997.)
[106] McNamee, "Wild Places," 18-20. For more information about the Native presence in the Banff-Glacier regions see E.J. Hart, *The Place of Bows: Exploring the Heritage of the Banff-Bow Valley. Part One to 1930* (Manitoba: Friesens, 1999).

The Sublime is in the Eye of the Beholder

Writing about a trip in the Yoho Valley, Mary Vaux lamented that "there are many tourists in the mountains this year, and they are not at all a help as so few of them care for scenery or anything worth while [sic]. Most of them come just to say they have been."[107] Vaux's dissatisfaction with tourists is ironic, for the pamphlets and, specifically, photographs produced by the family piqued tourist interest in the region. By omitting scenes of industry or tourism from the picture frame, the photographs stimulate the romantic gaze and in turn inspire traveler and tourist consumption of the region. At a time when poor health was the marker of an urban dweller's existence, seeking refuge in nature was considered the most suitable remedy.[108] People sought solace in the wilderness, and indeed the Vauxes' photographs suggest to the viewer that solitude and wonder await one at the top of a glacier or mountain.

Take, for example, the photographs in the 1922 brochure, the cover of which is graced by *Mount Assiniboine from Camp* (Fig. 4). As previously mentioned, this photograph presents the landscape as a sublime wilderness that is free of tourists. The image was an effective choice as it entices one to further explore the contents of the pamphlet, which includes *Falling Avalanche from Mount Victoria, Lake Louise* (Fig. 8). This image depicts a thundering avalanche tearing asunder the precipitous landscape. The background includes towering mountains, yet the powerful force of the avalanche is the central element of this image. Although tourist amenities were present in the immediate vicinity—the Lake Louise Chalet was just a short distance away—

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[107] Mary Vaux quoted in Cyndi Smith, *Off the Beaten Track*, 47.
[108] See George Altmeyer, "Three Ideas about Nature in Canada," 21-36.

the photographs omit all traces of tourist development or presence and focus instead on the power of the avalanche.

Although the C.P.R. regarded avalanches as obstructive hindrances to the production and maintenance of the railway line,[109] the advertisements extolled all elements of nature as a means to attract tourists. The text complements the photograph by glorifying the avalanche as a natural phenomenon waiting to be seen. The Vauxes wrote that "on a summer afternoon a succession of fine avalanches may frequently be seen, sometimes as many as thirty or forty an hour. They are most interesting to watch as they come pouring down over the stupendous precipices…"[110] This passage revolves around the sense of sight because the objective is to be able to see and thus experience this natural phenomenon. As Peter Osborne explains, the photographs not only shape perceptions of place but also precondition touristic experience, which is why tourism is understood to be a form of confirmation rather than discovery.[111] In this case, the experience, or confirmation, of the romantic gaze in the landscape and, in turn, the definition of nature, depended upon the viewer's personal contexts. While the Vauxes maintained the perception that nature was a sublime wilderness, the growing tourist development in the mountain parks may have precluded the realization of this gaze in the physical landscape for other travelers or tourists.

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[109] Putnam, *The Great Glacier and Its House,* 15-34.

[110] Mary and George Vaux Jr., "The Glaciers of the Canadian Rockies and Selkirks," 1922, 13, C.P.R. Pamphlets, M107/accn. 2924.

[111] Osborne, *Travelling Light,* 82.

Conclusion

The definition of nature is complex, and as this chapter has demonstrated, it is also idiosyncratic. The romantic gaze has the potential to be experienced by any kind of traveler or tourist, and the Vauxes' role as consumers and producers of the gaze serves as a testament to this claim. Despite the human activity and trappings of tourism in the mountain parks, the Vaux family's Quaker faith continued to inspire their vision of the wilderness as a numinous place. In keeping with the Quaker practice of experiencing God in nature, the Vauxes were mountain pilgrims who sought to experience the transcendental elements that permeated the glaciers and mountains. Their annual retreats and involvement with organizations within the parks validated their status as members of the first generation of mountain railway travelers. Like other members of this alpine fellowship, the family felt a social commitment towards the parks, which they acted upon by creating brochures that educated readers about the glaciers, the Selkirks and the Rocky Mountains. While the C.P.R. brochures promulgated the family's research and photographs, they were also instrumental in generating tourism in the mountain areas as the photographs piqued the viewer's romantic gaze. The concept of experiencing the sublime wilderness is a romantic and desirable notion for people, especially in a time when industry and technology are the markers of urban existence. As this chapter has illustrated, however, the perception of sublime wilderness is in the eye of the beholder.

Conclusion

> *In short, the place offers unusual attractions to those fond of snowy mountains and of nature in her virgin form. One is led to realize the littleness of man and the omnipotence of the Creator, whose agencies may here be seen in their most active form, building up and destroying the mighty mountains, in comparison to which the work of man, as exemplified in the tiny threads of steel of the railway connecting us with civilization seem to be as less than the "dust of balance."*[1]

Like the landscape photographs that focus on the majesty of nature, William's observation confirms that the trappings of technology are ancillary to the glory and beauty of the wilderness. William's observation is a fine narrative with which to conclude because it illustrates the Vauxes' conviction of nature as a place of spirit despite the presence of tourism—and all that is associated with it—in the mountain parks. For the Vauxes, the wilderness is a place where spirit, human, and non-human intersect, and where interests in science and art can be explored. The definition of nature is informed by a cluster of cultural ideas and constructs, and this study has focussed on the role of faith, visual culture, and tourism in the investigation of the Vauxes' landscape photography. This thesis has demonstrated that the Vauxes' photographs depict the landscape as a sublime wilderness, one in which the ethereal and numinous qualities pervade the landscape and where intimations of the divine are invoked. It is argued that their Quaker culture of benevolence engendered a sense of wonder about the landscape as a spiritual place, and in turn encouraged their perception of the non-human realm as a sublime environment. The spiritual elements in the photographs are fostered by a purist photography aesthetic, which blends emotional reverence with detail and observation. The practice afforded the photographs' fluidity in meaning and the ability to function within artistic and scientific capacities, yet the underlying emotional reverence towards nature is the constant variable implicit in the images. The concept of the sublime is steadfast in the family's landscape photographs, and was instrumental in inspiring tourist and traveler interest in the mountains and glaciers. As it is illustrated, however, the confirmation of the romantic gaze or perception of the sublime wilderness is contingent upon the viewer. The definition of nature is complex because it is informed by an amalgam of cultural ideas and personal contexts. Photographic images such as those produced by the Vauxes can condition the viewer's perception of place, and as argued in this thesis, the Vauxes' photographs serve as pretexts that inform the cultural conception of nature as a sublime wilderness.

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[1] William S. Vaux Jr., "Climbing in the Selkirk Mountains," *The Minneapolis Journal*, 24 December 1898, n.p. Archives and Library of the Whyte Museum of the Canadian Rockies, M107/accn. 7202.

William Cronon takes issue with the concept of the sublime, as he argues that it promotes an incomplete definition of the wilderness. Cronon's post-structural argument is the theoretical foundation to this thesis because of his critical investigation of the definition of nature. As an environmentalist, he urges his readers to rethink the idea of nature, as the overarching goal of his study is to extend the concept of nature to include all aspects of the non-human environment; this includes the trees in the city park and the pond in the cultivated field. Cronon's study has prompted me to recognize that the idea of wilderness is a fluid and ambiguous term that is incidental not only to broad historical frameworks, such as aesthetics, but also to individual idiosyncrasies. For the Vauxes, the mountains and glaciers were a place of spirit. The Vauxes' perception of nature as a sublime environment is not an exhaustive one, but rather a starting point upon which viewers such as myself can create ideas about the wilderness.

Dean MacCannell's theory of sight sacralization is an important nuance throughout this thesis, especially his argument that the visual reproduction of the landscape confirms the sacredness of a sight, which in this case are mountains and glaciers. There is an extensive scholarly discussion about the visual representation of the landscape, as it is contended that visual culture such as photographs can condition perceptions of place. Peter Osborne explains that landscape images such as those used for tourism purposes are quotations, in that they are a "reprising of the contents of the brochures, or the reproduction of a view that as likely as not came into existence as a consequence of photography."[2] Osborne's statement aligns with Joan Schwartz's theory of imaginative geography, as it also demonstrates that images are conditioned by multidimensional cultural elements. Each photographer carries with him or her "intellectual baggage,"[3] which includes knowledge about place that is drawn from travel ephemera such as tour books, travel writing, and fictional literature. Imaginative geographies feed the photographer's knowledge of a place and in turn the photographic depiction of it. The accumulation of ideas that constitutes the photograph forms a pretext that informs viewers' conceptions about place. Schwartz's theory has been instrumental for this thesis in demonstrating the importance of acknowledging the complex issues that define the photographic image and of dissecting the elements—such as faith, photography practices, and tourism— that inform it.

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[2] Peter D. Osborne, *Travelling Light: Photography, Travel and Visual Culture* (Manchester and New York: Manchester University Press, 2000), 79.

[3] Joan M. Schwartz, "*The Geography Lesson:* Photographs and the Construction of Imaginative Geographies," *Journal of Historical Geography* 22 (January 1996): 16-45.

Schwartz's imaginative geography, MacCannell's sight sacralization, and Cronon's investigation into the cultural meaning of the concept of nature are the theoretical basis to this project. Another text that has been inspirational is Edward Cavell's *Legacy in Ice: The Vaux Family and the Canadian Alps,* the only monograph to date about the Vauxes. Cavell provides a comprehensive overview of the Vauxes, as he outlines the family biography, their travel on the C.P.R., their photography practice and scientific endeavors. While my research builds on Cavell's work, this thesis is not an exhaustive study of the family. For example, I have framed the Vauxes' photographs within the sublime aesthetic, however recall that William Cronon credits both the sublime and frontier as notions that informed the American "nation's most sacred myth of origin."[4] While I have concentrated on the concept of the sublime landscape as depicted in photographs such as *Mount Assiniboine from Camp* (Fig. 4) or *Falling Avalanche from Mount Victoria, Lake Louise* (Fig. 8), this is not to say that the Vauxes wholly omitted industry in the images. The family shared an interest in technology,[5] especially William Vaux Jr. who was an engineer. The photograph *Break in the Snowshed at Glacier from Below* (Fig. 2) was used for reports and articles about the creation of the railway, but also represents the tension between human progression and natural wonder that define the frontier. Here the railway workers have forged a path for the steam engine—a marker of innovative technology—yet the towering mountain in the background overshadows the entire picture frame. Despite the power of the railway line cutting through the forest, the mountain is the dominant entity, seemingly legitimizing William's description of the railway as "tiny threads of steel" and civilization as "less than the dust of balance." An examination of the family's photographs from the perception of the frontier would offer a new dimension to the Vauxes' landscape images.

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[4] William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," in *Uncommon Ground: Rethinking the Human Place in Nature,* ed. Wm. Cronon (New York: W.W. Norton, 1996), 77.

[5] Thank you to Don Bourdon, head archivist at the Archives and Library of the Whyte Museum of the Canadian Rockies, Banff, for pointing this out to me. Mr. Bourdon explained to me that the Vauxes were promoters of technology such as the typewriter, bicycle, and sewing machine, and were fascinated with photography and the steam engine.

Conversely, while my discussion of the Vauxes' glacier research is framed within the purist photography aesthetic, an examination of the images from a scientific perspective would add breadth to the understanding of the glacier photographs. The Vauxes pioneered glacier research in Canada, and while the discipline has evolved over the past century, there continue to be similarities between current and past research techniques. For example, like the Vaux family, glaciologists use photographic images to chart glacial recession.[6] While scientists depend on satellite imagery to map glacial recession, others use the repeat photography method to chart glacier movement. Henry Vaux Jr., the grandson of George Vaux Jr. and a prominent American economic water resource academic, continued his family's glacier photography legacy in 2003 when he returned to Glacier National Park to re-photograph the Illecillewaet glacier. When compared to his family's photographs taken a century earlier, the current photographs yield disturbing evidence of glacier recession.[7] Visual images such as those made by Henry Vaux Jr. increase the public's awareness of the dramatic changes occurring in the glacier landscape.

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[6] To read about glacier recession that is mapped out by satellite images see Sid Perkins, "Alpine Glaciers on a Hasty Retreat, "*Science News* 167 (January 2005): 13-22.

Like the glaciology community and general public today, the Vauxes were also concerned about glacier recession. In 1898 Mary Vaux reported: "But sorrowful to say the distance is constantly becoming greater, owing to the very rapid melting away of ice."[8] Vaux's despair over the recession is echoed in recent studies, such as those published by Mike Demuth, a leading Canadian glaciologist and member of the Geological Survey of Canada. Demuth predicts an ominous future for Canada's glaciers, as his study suggests that glacier recession will cause water levels in the Bow River to decrease by fifty percent within the next twenty-five years.[9] Likewise, journalist and writer Andrew Nikiforuk laments that "Before long, we'll be talking about [the glaciers], and the mighty river they once fed, in the past tense. Children will trade cards of disappearing glaciers photographed by the Vauxes…"[10] Glaciologists argue that glacier recession is intractable because global warming caused by growing levels of carbon dioxide in the atmosphere prevent proper glaciation from occurring.[11]

This portentous perspective is countered by other glaciologists who contend that glacier recession is a natural stage in the cycle of recession and re-advancement. In a study conducted by S.J. Larocque, dendrochronological and lichenometric techniques— which are the practices of measuring growth rings in trees and lichens, respectively—were used to gauge the relative age of moraines at Ragnarok, Siva, and Cathedral glaciers, which are located in the Mount Waddington, British Columbia, area. It was found that the moraines exhibited a period of recession and retreat before re-advancing.[12] Given the lively glacier debate taking place within the scientific community and the evolution of the discipline, it would be productive for future Vaux researchers to situate the Vauxes' glacier studies and photographs within the scientific debate.

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[7] Henry Vaux Jr.'s photographs were displayed alongside his ancestor's images at the 2003 exhibition at the Whyte Museum of the Canadian Rockies in Banff titled *Art Born of Science: The Vaux Family Amidst the Ice, 1887-2002. The Vauxes As Photographers.*

[8] Mary Vaux, *Minneapolis Journal,* 24 December 1898, n.p; quoted in Andrew Nikiforuk, "Rocky Mountain Meltdown," *Globe and Mail,* 18 September 2004, sec. F, pg. 9.

[9] Andrew Nikiforuk, "Rocky Mountain meltdown," *Globe and Mail,* 18 September, 2004, sec. F, pg. 1, 8-9.

[10] Ibid., 9.

Lastly, an in-depth investigation into Mary Vaux's photographic practices and mountain activities would serve as a fruitful contribution to women's history in the national parks. A growing interest in women mountaineers, photographers, and adventurers is evident in publications such as PearlAnn Reichwein and Karen Fox's *Mountain Diaries: The Alpine Adventures of Margaret Flemming 1929-1980,*[13] Cyndi Smith's *Off the Beaten Track: Women Adventurers and Mountaineers in Western Canada,*[14] and E.J. Hart's reprint of Mary Schäffer's *Old Indian Trails.*[15] Like the other women in the parks at the turn of the last century, Mary Vaux contributed to mountain culture. Her long list of achievements includes serving as the president of the Society of Women Geographers, as well as a council member of the Canadian

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[11] See B. Luckman, "Summer Temperatures in the Canadian Rockies During the Last Millennium: A Revised Record," *Climate Dynamics* 24 (March 2005): 131-5.
[12] S.J. Larocque, "Little Ice Age Glacial Activity in the Mt. Waddington Area, British Columbia Coast Mountains, Canada," *Canadian Journal of Earth Sciences* 40 (October 2003): 1413-1437.
[13] *Mountain Diaries: The Alpine Adventures of Margaret Flemming, 1929-1980,* eds. PearlAnn Reichwein and Karen Fox (Calgary, Alberta: Historical Society of Alberta, 2004).
[14] Cyndi Smith, *Off the Beaten Track: Women Adventurers and Mountaineers in Western Canada* (Jasper: Coyote Books, 1989.)
[15] *A Hunter of Peace: Mary T.S. Schäffer's Old Indian Trails of the Canadian Rockies,* ed. E.J. Hart (Banff, Alberta: Whyte Museum of the Canadian Rockies, 1980).

Trail Riders of the Canadian Rockies.[16] She was a member of the Alpine Clubs of Canada and America, the American Association for the Advancement of Science, and the Colonial Dames of Philadelphia. An erudite woman, Vaux preferred scientific study to "bridge parties and dances,"[17] and she published an immensely successful book, *North American Wildflowers,* in 1925. Vaux also conducted lantern slide presentations of her favorite haunts—Glacier and Yoho National Parks—at the Natural Sciences Society of Philadelphia, and lectured about the family's glacier research, a study which she carried on into the 1930s. Her interest in science was nourished at home and in her personal life, and was complemented by her fascination with photography. Vaux was a skilled platinum printer, and she published her landscape photographs of the Selkirks and Canadian Rockies in *National Geographic* in 1916[18] as well as in C.P.R. pamphlets in 1922. As a member of the Philadelphia Photographic Society and Photo-Secession, she exhibited her nature photographs at the Philadelphia Fine Art Salon, Philadelphia Photographic Society shows, and at *Photo-Secession Gallery* in New York.[19] This list is by no means exhaustive, yet it is impressive because of her many accomplishments. A focussed study of Mary Vaux would both honor her achievements and acknowledge her presence among the roster of women mountaineers, photographers, and adventurers that constitute the history of the national parks.

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[16] For a history about the Trail Riders see Trail Riders of the Canadian Rockies, "A Ride Into Our Past," http://www.canuck.com/~trcr/histtr.html accessed 1 May 2005.
[17] Mary Vaux quoted in Smith, *Off the Beaten Track,* 40.
[18] See Wm. Howard Taft, "Great Britain's Bread Upon the Waters: Canada and Her Other Daughters," *National Geographic* 29 (1916): 217-72.

Yoho National Park was one of Mary Vaux's favorite haunts, and so I conclude by revisiting the image photographed there— *Takakkaw Falls from Below* (Fig. 1). In the photograph, Mary is pictured in sublime nature, alone with her thoughts and the spectacular mountain scenery. It comes as no surprise that Mary, William, and George Vaux Jr. cherished such landscapes, as it was the mountain wilderness and glaciers that excited their imagination and passion about nature: the "loveliest spot[s] to be found."[20]

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[19] All biographical information about Mary Vaux is taken from Cavell, *Legacy in Ice,* Smith, *Off the Beaten Track,* and unpublished material from the Whyte Archives of the Canadian Rockies, Banff, Alberta.
[20] Mary Vaux, letter to Dr. Charles Walcott, 1 April 1912, Smithsonian Record Unit 7004, Box 5, Folder 2.

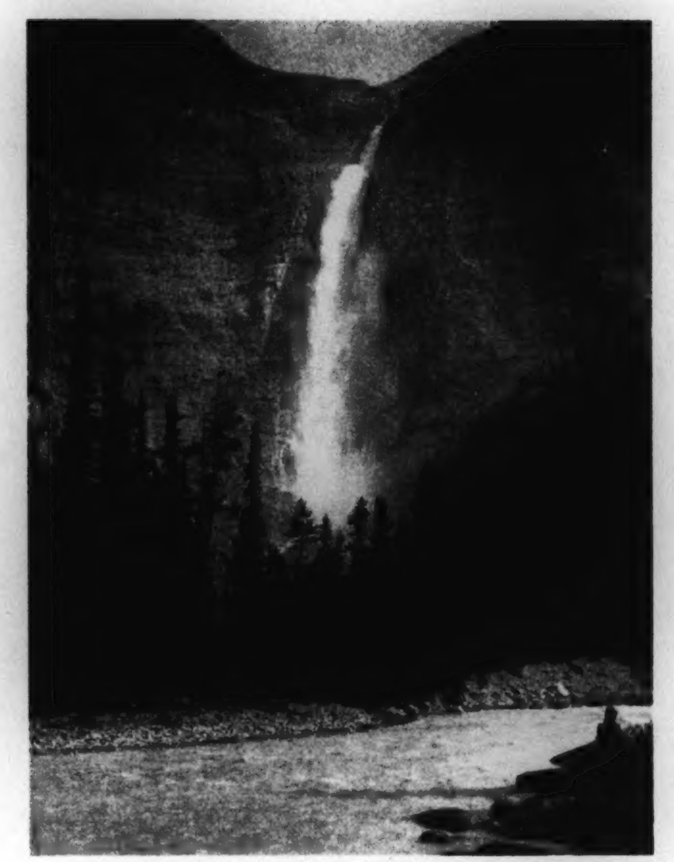

Fig. 1 *Takakkaw Falls from Below*, 19 August 1901. As reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps*, page 47. Banff: Altitude Publishing, 1983.

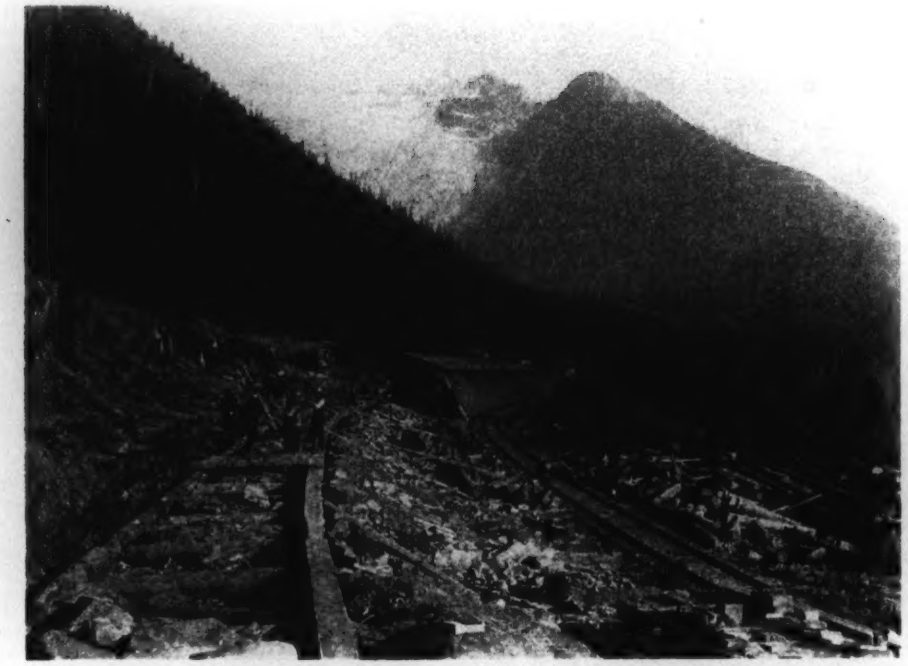

Figure 2. *Break in the Snowshed at Glacier from Below, Glacier Crest in Distance.* 1898. As reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps*, page 30. Banff: Altitude Publishing, 1983.

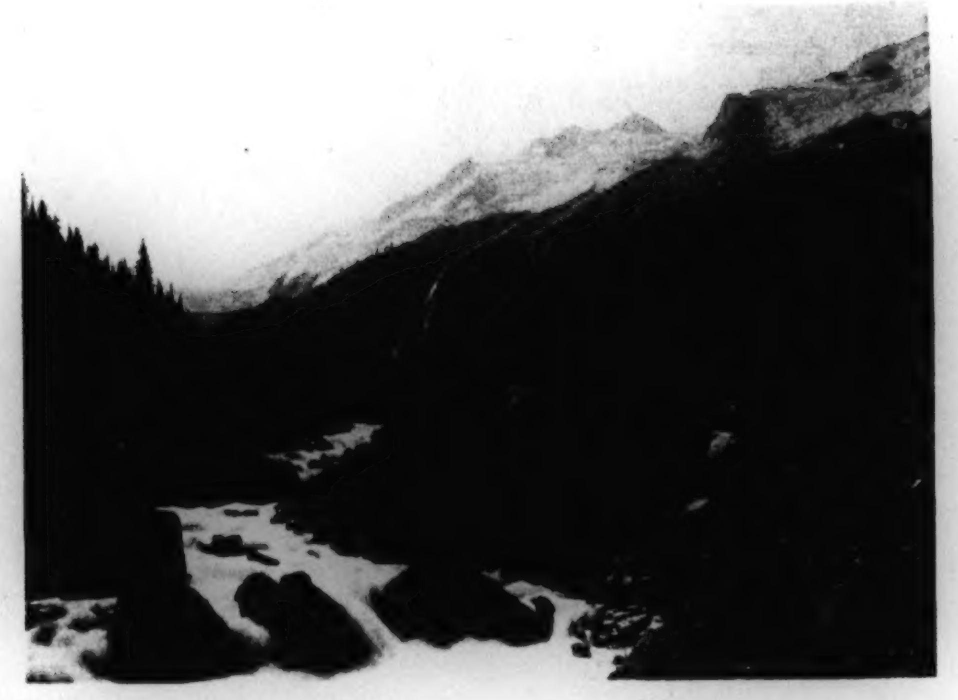

Figure 3. *Castor Pollux etc with Asulkan Stream in the Foreground*, 26 August 1898. As reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps*, page 26. Banff: Altitude Publishing, 1983.

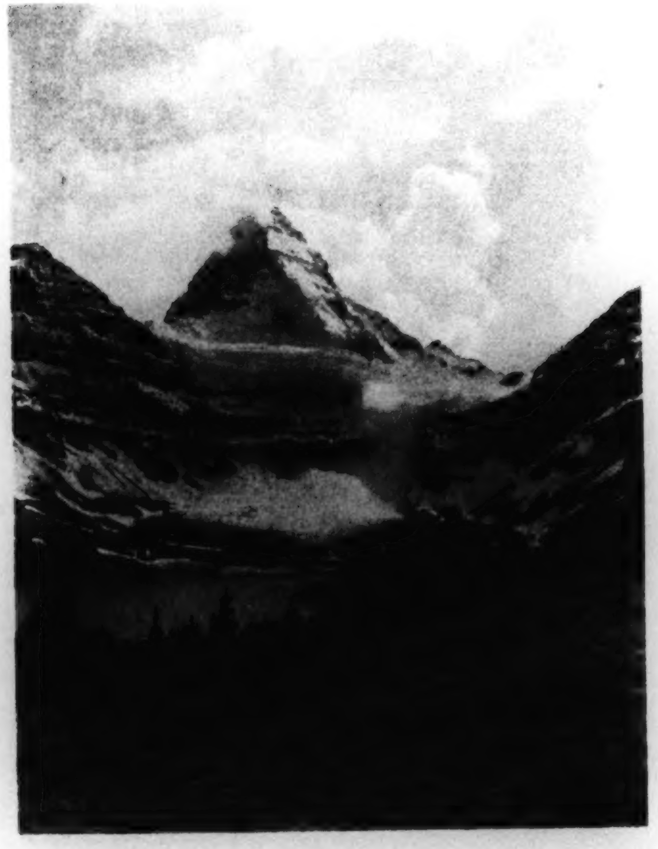

Figure 4. *Mount Assiniboine from Camp*, 1907. As reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps*, page 46. Banff: Altitude Publishing, 1983.

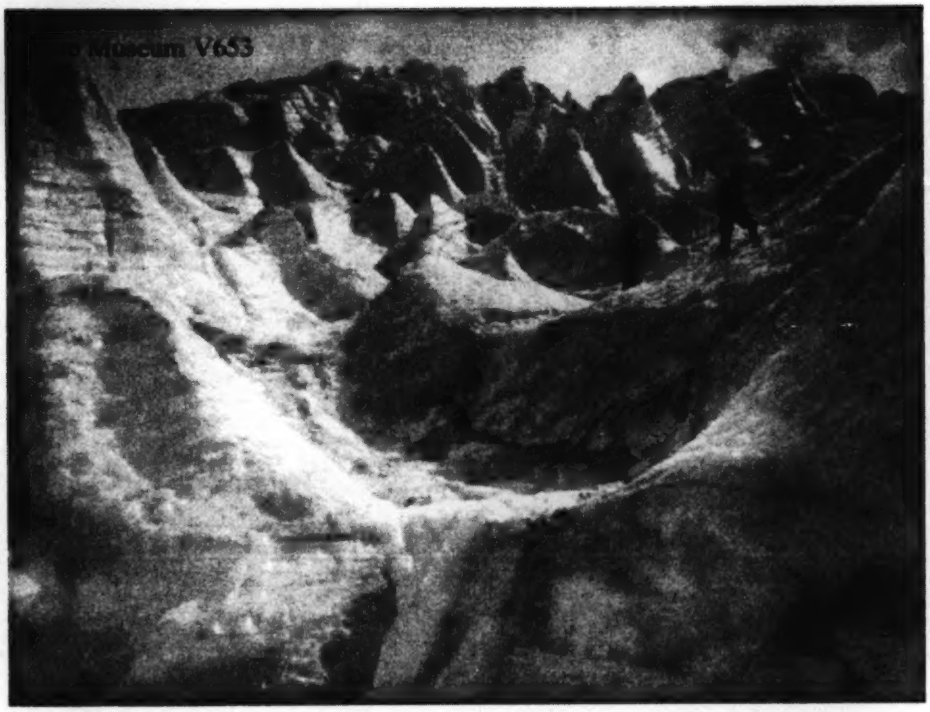

Figure 5. *Séracs, Illecillewaet Glacier*, 24 August 1901. Courtesy of the Archives and Library of the Whyte Museum of the Canadian Rockies, (WMCR-V653/ NG-860).

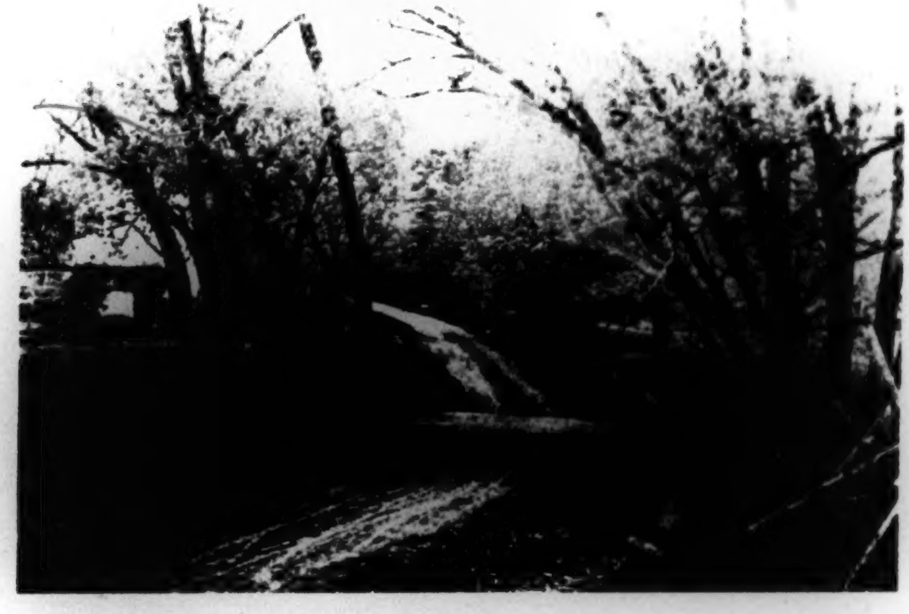

Figure 6. Mary Vaux. *The Meadow Road in Spring*. 1899 Philadelphia Salon. As reproduced in William Innes Homer, *Pictorial Photography in Philadelphia. The Pennsylvania Academy's Salons: 1898-1901*, n.p. Philadelphia: The Pennsylvania Academy of the Fine Arts, 1984.

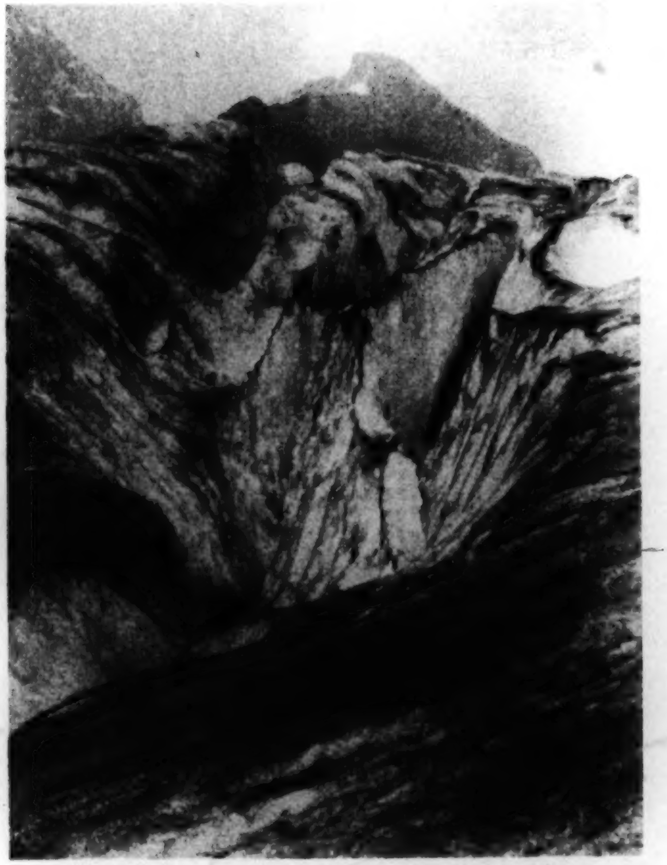

Figure 7. *Crevasses, Illecillewaet Glacier,* 1905. As reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps*, page 41. Banff: Altitude Publishing, 1983.

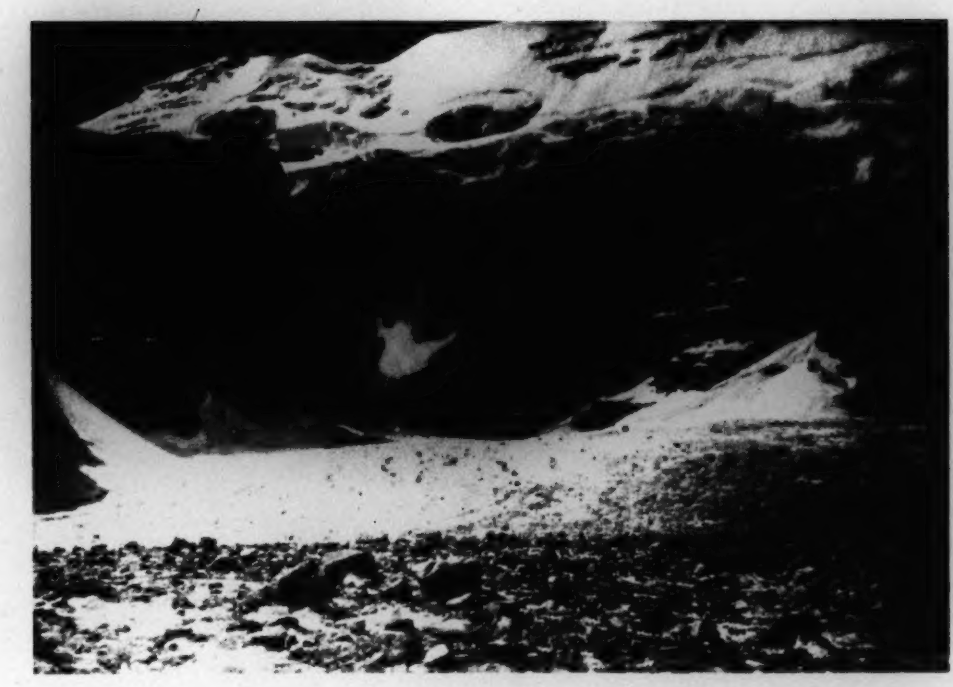

Figure 8. *Falling Avalanche from Mount Victoria, Lake Louise*. Between 1894 and 1912. Archives and Library of the Whyte Museum of the Canadian Rockies (WMCR-V653/ NG-950)

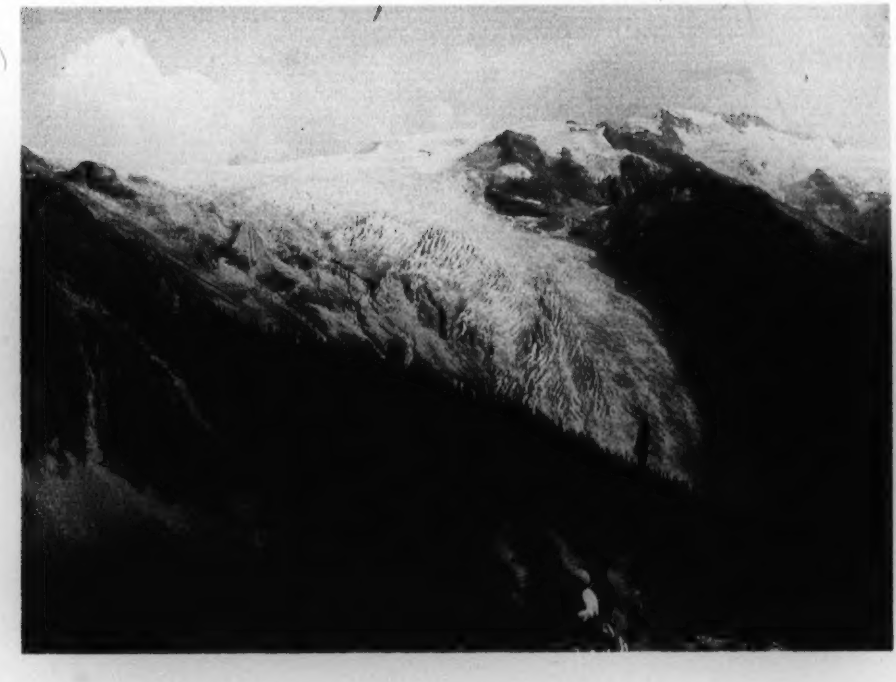

Figure 9. *The Great Illecillewaet Glacier, from Avalanche Crest.* As reproduced in Edward Cavell, *Legacy in Ice: The Vaux Family and the Canadian Alps*, page 24. Banff: Altitude Publishing, 1983.
(Cavell titles it *Dome, Castor and Pollux, Asulkan Glacier, Glacier Crest, and Illecillewaet Glacier from trail to Mount Avalanche*, 1898).

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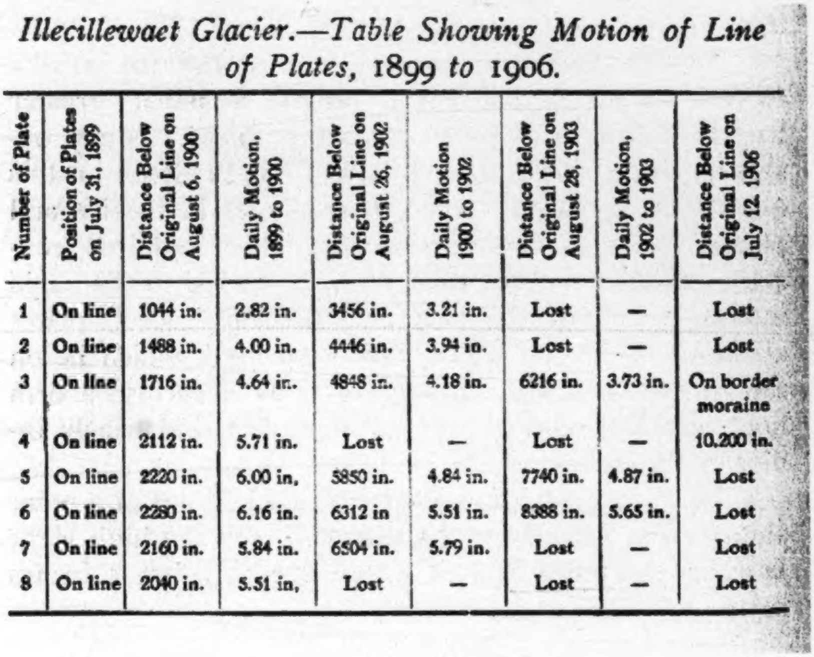
APPENDIX I: Charts Detailing the Illecillewaet Glacier's Motion, 1899-1906



Illecillewaet Glacier.—Table Showing Motion of Line of Plates, 1899 to 1906.

Number of Plate	Position of Plates on July 31, 1899	Distance Below Original Line on August 6, 1900	Daily Motion, 1899 to 1900	Distance Below Original Line on August 26, 1902	Daily Motion 1900 to 1902	Distance Below Original Line on August 28, 1903	Daily Motion, 1902 to 1903	Distance Below Original Line on July 12, 1906
1	On line	1044 in.	2.82 in.	3456 in.	3.21 in.	Lost	—	Lost
2	On line	1488 in.	4.00 in.	4446 in.	3.94 in.	Lost	—	Lost
3	On line	1716 in.	4.64 in.	4848 in.	4.18 in.	6216 in.	3.73 in.	On border moraine
4	On line	2112 in.	5.71 in.	Lost	—	Lost	—	10.200 in.
5	On line	2220 in.	6.00 in,	5850 in.	4.84 in.	7740 in.	4.87 in.	Lost
6	On line	2280 in.	6.16 in.	6312 in	5.51 in.	8388 in.	5.65 in.	Lost
7	On line	2160 in.	5.84 in.	6504 in.	5.79 in.	Lost	—	Lost
8	On line	2040 in.	5.51 in,	Lost	—	Lost	—	Lost

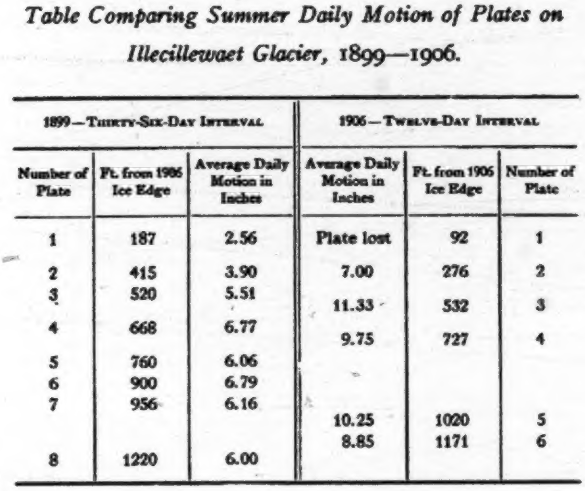


Table Comparing Summer Daily Motion of Plates on Illecillewaet Glacier, 1899—1906.

1899—Thirty-Six-Day Interval			1906—Twelve-Day Interval		
Number of Plate	Ft. from 1906 Ice Edge	Average Daily Motion in Inches	Average Daily Motion in Inches	Ft. from 1906 Ice Edge	Number of Plate
1	187	2.56	Plate lost	92	1
2	415	3.90	7.00	276	2
3	520	5.51	11.33	532	3
4	668	6.77	9.75	727	4
5	760	6.06			
6	900	6.79			
7	956	6.16			
			10.25	1020	5
			8.85	1171	6
8	1220	6.00			

Canadian Alpine Journal 2 (1909): 74, 75.